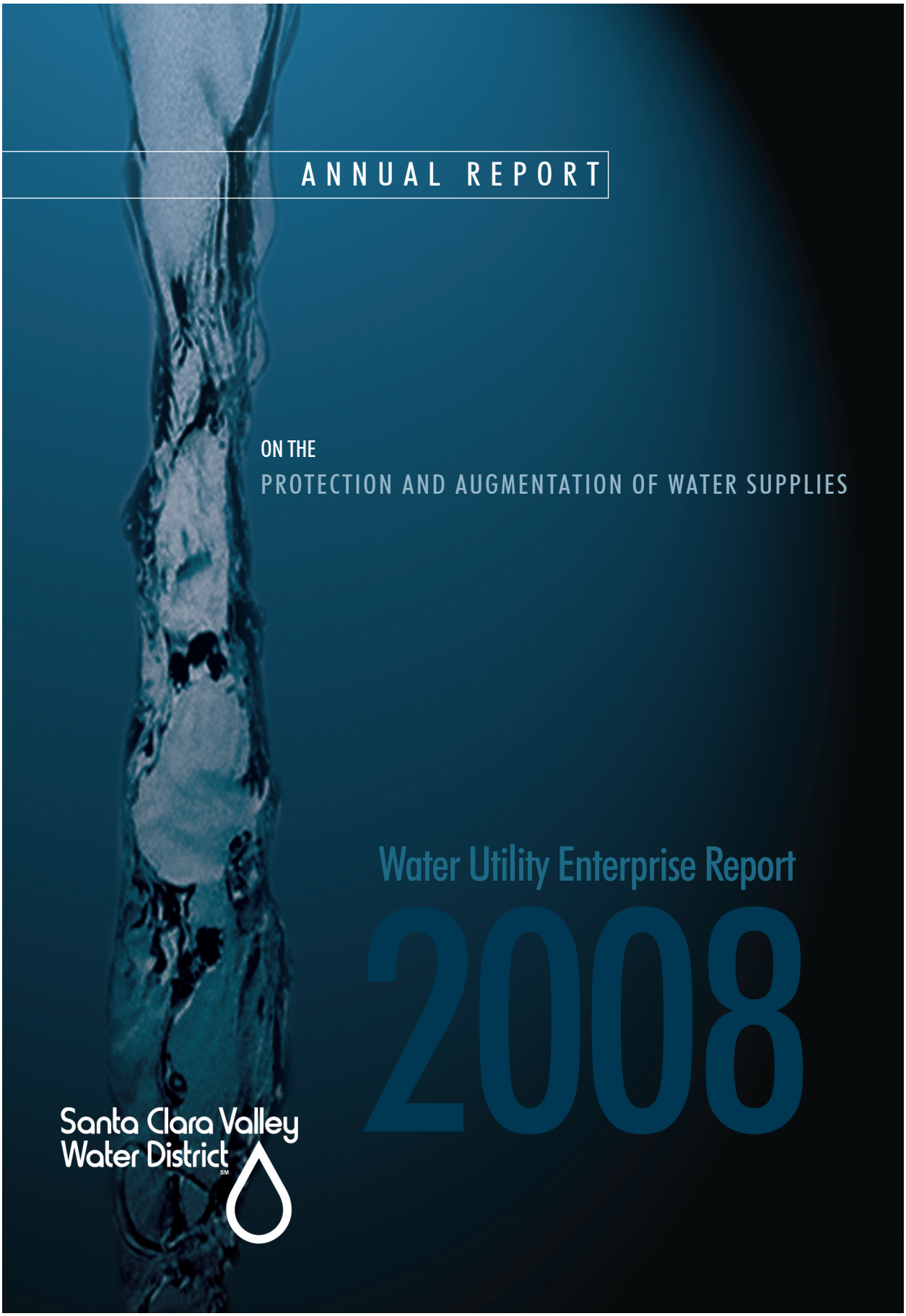


ANNUAL REPORT

ON THE

PROTECTION AND AUGMENTATION OF WATER SUPPLIES

Water Utility Enterprise Report

2008

Santa Clara Valley Water District℠

PROTECTION AND AUGMENTATION OF WATER SUPPLIES

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Mission

The mission of the District is a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally sensitive manner.

Board of Directors



From left to right: Richard P. Santos, District 3; Joe Judge, District 2; Rosemary Kamei - Chair, District 1; Tony Estremera, At Large; Sig Sanchez - Vice-Chair, At-Large; Patrick Kwok, District 5; Larry Wilson, District 4

Rosemary Kamei, Chair
District 1

Joe Judge
District 2

Richard P. Santos
District 3

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Patrick Kwok
District 5

Tony Estremera
At Large

Sig Sanchez, Vice-Chair
At Large

March 25, 2008

Dear Board Members:

This is the 37th annual report on the Santa Clara Valley Water District's (District) activities in the protection and augmentation of the water supplies of the District. This report, required by the Santa Clara Valley Water District Act to be published and filed prior to holding public hearings on groundwater production charges for the upcoming year, presents the water supply information that is the basis for the recommended groundwater production charges for fiscal year 2008-09.

This year's report emphasizes the core business and services provided by the District's Water Utility Enterprise, along with the requisite financial analysis of the Water Utility Enterprise system. In keeping with that renewed focus, the report is taking on a new name: The Protection and Augmentation of Water Supplies Report, March 2008.

I am conscious of economic conditions within the county and the state, in addition to the burden that rising costs have on our customers and groundwater producers. Last year's analysis showed a range of potential groundwater production charges reflecting various service levels. The rates recommended for FY 2008-09 are the same as projected last year. They are based upon a 3% increase in operating expenses consistent with the consumer price index, and capital funding only for meeting critical project needs. The recommended rates reflect reprioritization of work as appropriate to address critical needs first, coupled with delay of some planned capital improvement projects and trimming of some lower priority expenses.

Maintaining current service levels, however, is not without challenges and additional costs. Last year (2007) was very dry both locally and in the Sierra, compounded by interruptions and cutbacks in imported water deliveries. The State Water Project's Banks Pumping Plant was shut down for a ten-day period in June to protect Delta smelt, and uncertainties continued with interim court-mandated restrictions put into effect in December. Although the rains in early 2008 may promise to restore hydrologic conditions to near average, the District's imported water deliveries continue to be subject to cutbacks from regulatory actions in the Delta. Furthermore, construction costs continue to outpace inflation, despite the current economic slowdown, creating increases in the costs of maintenance and capital improvements.

The recommended FY2008-09 zone W-2 Municipal and Industrial groundwater production charge is $520 per acre-foot, an increase of 9.5% from FY 2007-08. The typical residence using 1,500 cubic feet of groundwater per month would see an increase of $1.55 per month.

Staff recommends no change to the treated water surcharge of $100 per acre-foot. The total treated water charge would be $620 per acre-foot, the sum of basic user charge (equivalent to the groundwater production charge) and the treated water surcharge.

The recommended FY2008-09 zone W-2 agricultural groundwater production charge is $16.50 per acre-foot, an increase of 6.4%.

The recommended FY 2008-09 zone W-5 Municipal and Industrial groundwater production charge is $275 per acre-foot, an increase of 7.8% from FY 2007-08. The charge translates to an increase of $0.69 per month for a typical residence using 1,500 acre-feet of groundwater per month.

The recommended FY2008-09 zone W-5 agricultural groundwater production charge is recommended to increase 6.4% to $16.50 per acre-foot.

Although this is an annual report, the Water Utility Enterprise plans 20, 30 and often 40 years ahead when evaluating water supply development and infrastructure needs. The Integrated Water Resources Planning Study 2003 recognized that the majority of water to be supplied in the future would come from existing resources which we need to continue to protect and augment. Job number one for the District Water Utility Enterprise is to protect existing assets – including natural resources, constructed utility infrastructure and water supply contracts and rights. Equally important, we need to stay on track with sound investments to augment and diversify existing supplies with robust, all weather supplies. We also need to continue to maximize efficiencies in management of water, financial and human resources, in our quest to operate and maintain a sustainable Water Utility Enterprise for the many decades ahead.

Sincerely,

Olga Martin Steele
Chief Executive Officer

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I Present Water Requirements and Water Supply Availability

I-1 Groundwater Conditions

Locally 2007 was abnormally dry. Inflows to the District's reservoirs were about 10% of normal. The Sierra snowpack, the state's largest water storage "reservoir," was only half of normal as of April providing little supply carryover to the high water-using months of summer and fall.

While reservoir levels are a visible indicator of our local water supply, the majority of our water reserves lie hidden beneath our feet in our local groundwater aquifers. Because the groundwater subbasins can store three times more water than all of the local surface water reservoirs combined, Santa Clara County depends on maintaining adequate storage in the subbasins in wet and average years to get us through extended periods of dry weather.

Although groundwater storage has dipped somewhat in 2007, overall groundwater storage levels remain robust due to District water management operations. Figures I-1.1 through I-1.3 show groundwater elevations for each of the three local groundwater subbasins. They are indicators of groundwater trends and conditions.

Figure I-1.1 Historical Santa Clara Subbasin Groundwater Elevations, Index Well, 07S01E07R013

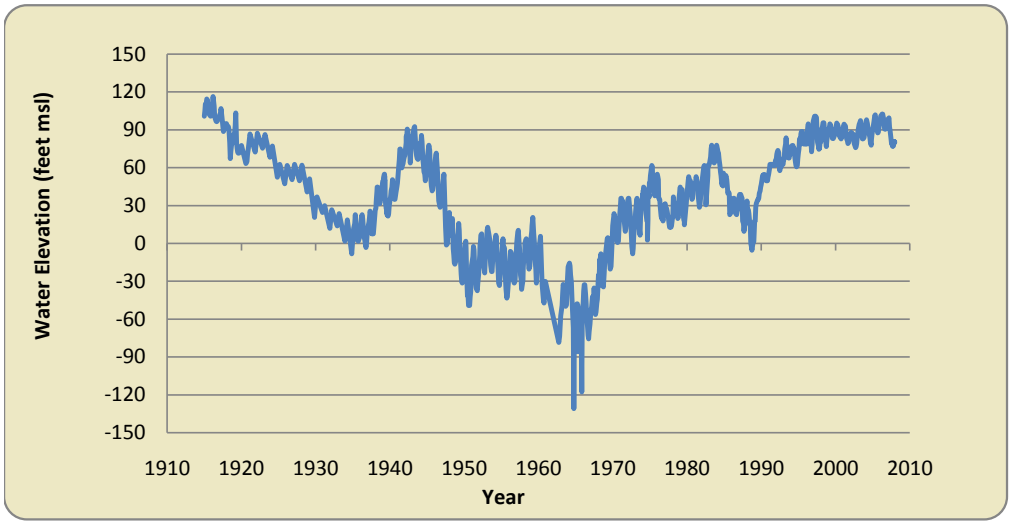


Figure I-1.2 Historical Coyote Subbasin Groundwater Elevations, Index Well, 09S02E02J002

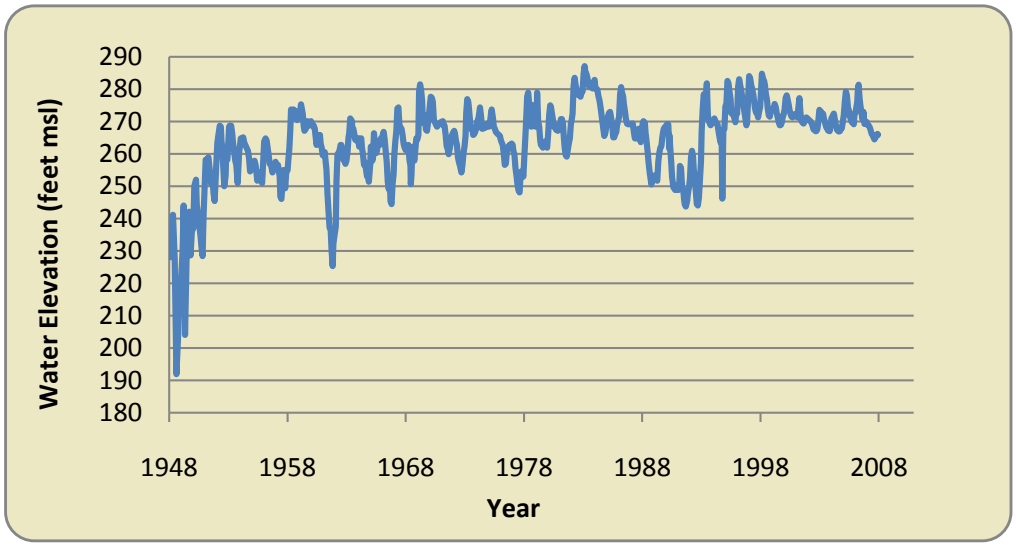
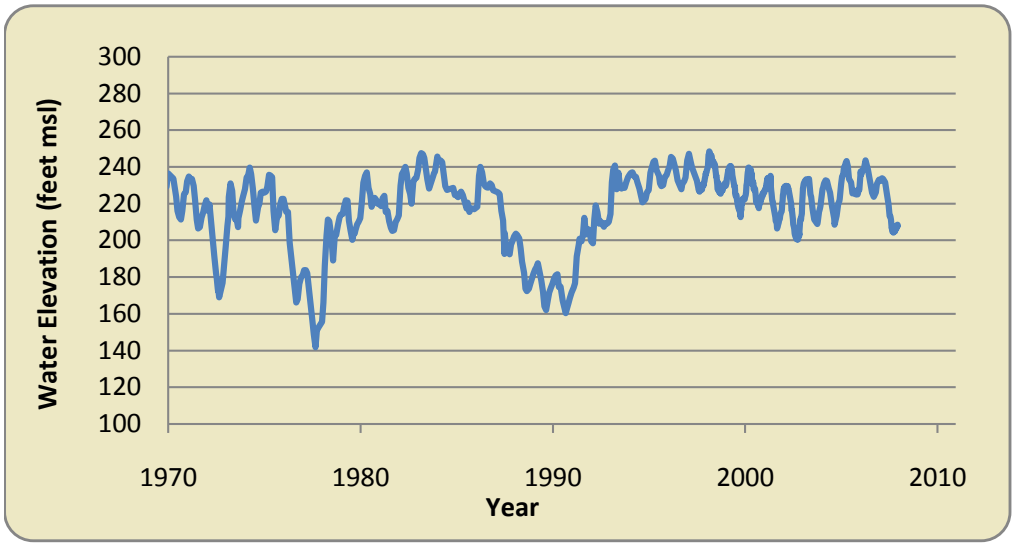


Figure I-1.3 Historical Llagas Subbasin Groundwater Elevations, Index Well, 10S03E13D003



Although groundwater elevations have declined slightly recently, groundwater storage remains at healthy levels. One factor contributing to the groundwater elevations' decline was an increase in 2007 pumping compared to the prior two years as shown in Table I-1.1.

Table I-1.1 Historical Groundwater Production by Water Charge Zone

	In Acre Feet					
Charge Zone	**W2 Use**			**W5 Use**		
Year	**Agricultural**	**Non-Agricultural**	**Zone Total**	**Agricultural**	**Non-Agricultural**	**Zone Total**
1981	8,623	151,338	159,962			
1982	6,334	135,039	141,373			
1983	5,612	147,121	152,733			
1984	6,307	172,301	178,608			
1985	6,214	174,851	181,065			
1986	5,505	168,703	174,208			
1987	5,922	165,558	171,479			
1988	5,523	150,262	155,785	24,955	20,875	45,830
1989	4,805	84,005	88,810	24,389	17,148	41,538
1990	4,797	101,923	106,719	24,884	17,652	42,537
1991	3,791	88,422	92,212	28,313	16,884	45,198
1992	3,476	103,728	107,204	30,144	17,484	47,628
1993	3,086	101,851	104,937	27,761	18,233	45,994
1994	2,989	119,995	122,984	30,371	18,926	49,297
1995	2,458	110,215	112,673	29,080	19,202	48,282
1996	2,580	109,916	112,496	29,887	19,787	49,674
1997	1,910	118,550	120,460	32,746	21,710	54,456
1998	1,101	99,210	100,310	25,861	20,009	45,870
1999	1,087	106,403	107,490	29,144	23,767	52,910
2000	972	112,399	113,371	26,920	24,537	51,457
2001	752	114,606	115,358	28,510	25,437	53,947
2002	707	103,952	104,659	27,537	23,787	51,324
2003	447	96,208	96,656	25,964	24,256	50,220
2004	579	105,137	105,716	27,634	25,533	53,167
2005	826	86,640	87,467	25,458	25,237	50,695
2006	429	82,195	82,624	24,420	28,616	53,036
2007	560	107,275	107,835	25,570	29,962	55,532

I-2 Water Supply and Use

Managing groundwater is the reason the District was formed and it remains the District's most important mission. Local groundwater resources make up the foundation of our water supply, but they need to be augmented by the District's comprehensive water supply management activities in order to reliably meet the needs of county residents, businesses and agriculture. These activities include water use efficiency, additional storage and supplemental water supplies.

Water Needs

Total water usage in Santa Clara County was estimated to be 383,000 acre-feet in calendar year 2007. Without the District's and its water retailers' commitments to conservation, countywide water demand in 2007 would have been 42,000 acre-feet more. In addition to reducing dry-year water needs, conservation in wet years allows the District to store water supply for later

use. Saving water is a good idea, wet year or dry. It is also an important strategy for reducing greenhouse gas emissions within the county. Table I-2.1 shows water use in Santa Clara County in both 2006 and 2007.

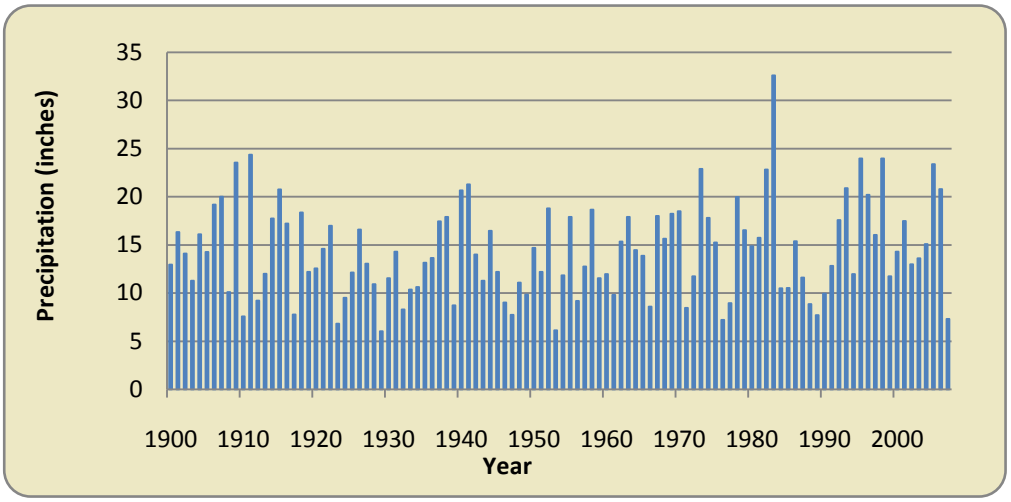
Table I-2.1 Actual 2006 and Estimated 2007 Water Use in Santa Clara County

	In Acre Feet	
Water Use	**Actual 2006**	**Estimated 2007**
Groundwater	135,660	163,400
Treated Water	131,621	131,400
District Surface Water Deliveries		
(i.e. raw water)	3,130	5,250
SFPUC Supplies to Local Retailers	57,300	59,700
SJWC and Stanford Water Rights	20,143	6,450
Recycled Water	15,193	16,900
Total Water Used in Santa Clara County	**363,047**	**383,100**

Water Supplies

Rainfall locally was abnormally low in 2007 as shown in this graph of San Jose rainfall gage Station 86 (Figure I-2.1). Because of when and how the rainfall fell, runoff into local reservoirs was quite low, about 10% of average. By supplementing the locally captured surface water with supplies imported from the Bay-Delta and water carried over from the previous years, the District was able to operate essentially a fully managed recharge program (except for those streams not accessible to imported water).

Figure I-2.1 San Jose Rainfall (Station 86)



Existing and proposed environmental regulations in the Bay-Delta continue to affect the District's imported supplies. The year 2007 may well be remembered as the "year of the Delta smelt" as a federal court decision further restricted Delta pumping in an attempt to save the endangered fish from extinction. The water supply impacts of this and other measures to protect the Bay-Delta ecosystem and its fisheries are not entirely known at this time.In addition to providing a source of recharge water, water imports also benefit the groundwater subbasins through the District's treated water sales. The District operates three water treatment plants and sells treated water to nine of the 13 water retailers located within Santa Clara County. Additionally, eight water retailers purchase water from the City and County of San Francisco. Without these alternative supplies, groundwater pumping would have exceeded sustainable groundwater extraction levels.

Storage

Although the groundwater subbasins are the District's largest water storage facility, their capacity alone is insufficient to make the best use of surface supplies and provide water supply reliability in drought periods. Most of the local reservoirs were sized for annual operations, storing water in winter for release to groundwater recharge in summer and fall. The exception is the Anderson-Coyote reservoir system, which provides valuable carryover of supplies from year to year and can serve as a backup supply source to the District's water treatment plants when imported water deliveries are curtailed.

As part of its annual operations planning, the District routinely opts to carry over a portion of its imported water supplies from one contract year to the next. Even though the amount is often limited by state or federal project operators, it provides cost-effective insurance against a subsequent dry year. The District may also hedge against shortages by taking deliveries of available temporary flood flows from the Delta early in the year, before imported water contract allocations and local hydrology are known. Additionally, the District has invested in a water banking program at the Semitropic Water Storage District which provides 350,000 acre-feet of out of county water storage capacity. Together with water transfers and exchanges, this additional storage helps the District manage uncertainty and variability in supply as each water year develops. For example, in 2007 the District stored 2,342 acre-feet of temporary Delta flood flows in the Semitropic water bank early in the year, and then withdrew it later in the year as dry conditions developed. Table I-2-2 show calendar year activities for 2006 and 2007, including reservoir operations, raw water conveyance, treated water production, and groundwater recharge.

Although water storage reserves, including groundwater storage, were depleted in 2007, the end-of-year storages are sufficient to meet next year's water needs in compliance with Board ends policies.

Table I-2.2 Water Supply, Use and Distribution

	In Acre Feet	
	Actual 2006	**Estimated 2007**
District Supplies		
Local Surface Water		
Inflow	174,350	12,150
Releases from surface water storage	21,860	20,570
Imported Water		
Prior year carryover	11,310	38,910
Delta flood flows	26,770	4,840
State Water Project contract allocation	100,000	60,000
San Felipe Division contract allocation	152,500	114,050
Semitropic water bank withdrawals	0	20,000
Water transfers and exchanges	640	3,570
Total District Supplies:	**487,430**	**274,090**
Distribution of District Supplies		
To groundwater recharge		
Santa Clara Subbasin	65,770	66,330
Coyote Subbasin	8,330	9,040
Llagas Subbasin	22,110	19,580
To treated water	131,620	131,420
To surface water irrigation	3,130	5,250
To environment	89,950	600
To Semitropic water bank	64,040	3,690
To imported water carryover		
Used by District	38,910	36,180
Returned to SWP/CVP	59,870	0
To water transfers and exchanges		
returned to SFPUC via intertie	3,700	2,000
Total Distribution of District Supplies:	**487,430**	**274,090**
Other Supplies		
San Jose Water Co. & Stanford water rights	20,140	6,450
Recycled water (including District)	15,190	16,900
SFPUC deliveries to retailers	57,300	59,700
	92,640	**83,050**
Total Managed Supplies:	**580,070**	**357,140**
Note: Numbers rounded to the nearest 10AF.		

II Future Water Requirements and Water Supply Availability

As the water management agency and principal water wholesaler for Santa Clara County, the District is responsible for planning for the water supply of the county to meet current and future demand in collaboration with San Francisco Public Utilities Commission and retail agencies in the county.

Water supply reliability includes the availability of the water itself as well as the reliability and integrity of the infrastructure and systems that capture, store, transport, treat and distribute it. As the principal wholesale water manager for Santa Clara County, the District strives to meet water demand under all hydrologic conditions, including satisfying its treated water contracts for deliveries to the retail water agencies.

Since water supplies available to the county are obtained from both local and imported sources, the District's water supply is a function of the amount of precipitation that falls both locally and in the watersheds of Northern California. The supply available is also a function of the facilities in place to manage the supply. Sources of water supply in northern Santa Clara County (North County) consist of locally developed water, recycled water, and water imported by the District via the State Water Project (SWP) and the federal Central Valley Project (CVP), as well as supplies to some of the retail agencies from the City and County of San Francisco's regional water system (Hetch Hetchy). Southern Santa Clara County (South County/Coyote Valley) is supplied by locally developed water, recycled water, and CVP water.

II-1 Projected Future Water Supply Availability and Demand

Near-term Water Supply Availability

District staff begins preparing the District's Annual Water Supply Operations and Contingency Strategy for the upcoming calendar year in the fall of each year. The strategy is composed of several operations and water supply management scenarios that account for the probable range of water supply conditions that the District can expect in the upcoming year. These variable conditions include precipitation, both locally and in the Sierra. Local precipitation and runoff impacts our local reservoir storage, streamflows, and natural recharge of the groundwater basins. The quantity of precipitation in the Sierra and the timing of snowmelt impact the District's imported water supplies that are conveyed through the Sacramento-San Joaquin Delta. Other factors impact the District's water supply as well including facility limitations, contractual obligations, and institutional and legal constraints.

Of special concern this year is the May, 2007 federal court decision that invalidated the Biological Opinion issued by the U.S. Fish and Wildlife Service for operation of the State Water Project (SWP) and Central Valley Project (CVP) with regard to the Delta Smelt. Implementation of the judge's Draft Interim Remedial Order began on Dec. 25, 2007 and will continue through June 20, 2008. The federal court ruling will be in effect until a new biological opinion is in place that will guide the operations of the two water projects. The judge's order specifies that the new biological opinion should be completed by September 12, 2008.

The order has the potential to impact District water supply and operations in three key ways. First, although the specific pumping constraints that will be imposed in 2008 are dependent on Delta flow conditions, and smelt locations and spawning in the Delta, preliminary modeling indicates that implementation of the order could cut deliveries from the SWP and the CVP by 10% to 30% in 2008. Secondly, because specific pumping reductions cannot be predicted, the SWP and CVP will be unable to finalize their annual allocations until later in the year, potentially as late as July. Historically, allocations were typically finalized in mid-April, so the court decision significantly extends the period of supply and operational uncertainty. And last, the restrictions imposed on the Delta pumps will increase the draw on San Luis Reservoir. June water demands could exceed the allowable withdrawal rate from the reservoir if the Delta pumps are severely restricted. The imported water projects may be unable to meet delivery requests during this time period, especially if summer 2008 weather is hot. The District may be unable to meet immediate surface water demands under such circumstances.

All of these factors are being taken into account in the scenarios that are part of the Water Supply Operations and Contingency Strategy. The strategy includes scenarios for three projected year types: wet, average and dry. The strategy will be continuously updated throughout the year to account for operations to date and real-time conditions. It will be used to guide the management and operation of District water supplies and facilities to achieve Board Ends Policy E-2.1.2 "Water supply is reliable to meet current demand."

Table II-1.1 reflects the range of local and imported surface water supplies that the District currently expects in 2008: In the wet and average year types for 2008, the District expects to have adequate quantities of surface water supplies to meet treatment plant, surface delivery, and recharge needs. However, as discussed above, there may be periods of time when supply

deliveries are limited due to the federal court order or other regulatory restrictions. If 2008 is a dry year, supplies are much more limited. The District would continue to call for conservation efforts to reduce water use. In

Table II-1.1 Projected 2008 Surface Water Supply in Acre Feet

	Wet Year	Average Year	Dry Year
Imported Water	176,000 – 189,000	169,000 – 184,000	126,000 -133,000
Local Surface	88,000	51,000	33,000
Total	**264,000 – 277,000**	**220,000 – 235,000**	**159,000 – 166,000**

addition, the District will be more reliant on water supply reserves to meet demands. This includes taking water from storage in the local reservoirs, groundwater basins, and water stored outside the county in the Semitropic bank. These storage reserves are sufficient to meet next year's water needs in compliance with Board ends policies, even if 2008 were to be a dry year.

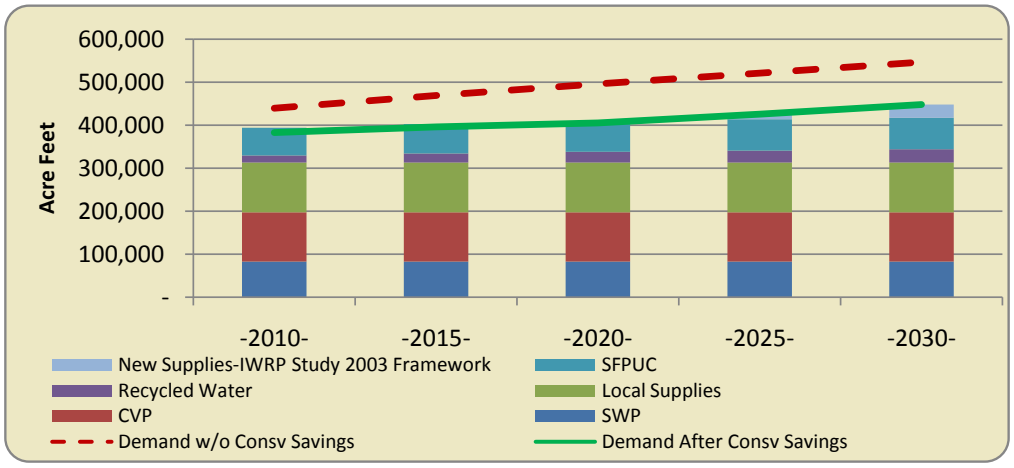
Long-Term Projected Demand and Water Supply Outlook

The District updates its Urban Water Management Plan (UWMP) every five years in compliance with the California Urban Water Management Planning Act.

The Association of Bay Area Governments (ABAG 2005) projects that the population of the county will increase to 2,267,100 by the year 2030, almost a 35% increase over the year 2004 population. This increasing population and significant job growth will increase demand for water.

Overall, countywide water demand is projected to increase by about 70,000 acre-feet (af) or 18% over the next 25 years, even with increases in new water conservation efforts. The District and most major water retail agencies partner in regional implementation of a variety of water use efficiency programs to permanently reduce water use in the county. As shown in Figure II-1.1, demand with conservation programs in place in 2030 is projected to be approximately 450,000 acre-feet. The conservation efforts planned between now and 2030 are anticipated to offset about half the additional water supplies needed to meet increased demand as illustrated in Figure II-1.1.

Figure II-1.1 Santa Clara County, Supply and Demand Comparison, Normal Year

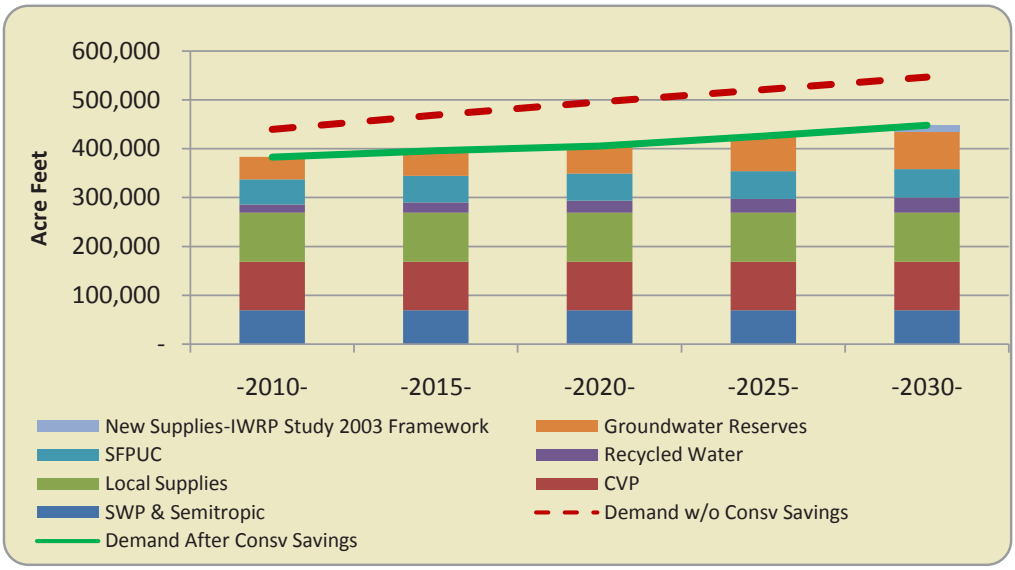


The District utilizes an Integrated Water Resources Planning (IWRP) process as an evaluation framework for making sound investment decisions on long-term water supply management under an environment of continual change and uncertainties. Stakeholders participating in the 2003 IWRP Study assisted the District in developing the planning framework, assessed risks to the water supply, identified and analyzed new water resource options, and developed near-term (to year 2010) and long-term (to year 2020 and 2040) water supply recommendations.

The IWRP planning framework includes various modeling tools to analyze historical hydrologic and operations data and to help characterize future water supply. Modeling results indicate that the county's water supply system is more vulnerable to successive dry years such as those that occurred in 1928-1934 and 1987-1992 which deplete water storage reserves in local and

state reservoirs and in the groundwater basin. In wet years, the District stores surplus supplies for use during drought periods. Supplies in excess of demand are stored in the groundwater basin and/or banked outside the county (Semitropic Water Bank). This operational strategy is limited by groundwater basin recharge capacity, distribution system capacity, and various contractual and infrastructure restrictions. Figure II-1.2 compares long-term supply and demand for multiple dry years.

Figure II-1.2 Santa Clara County, Supply and Demand Comparison, Multiple Dry Years



[2] Integrated Water Resources Planning Study, 2003, Santa Clara Valley Water District

II-2 Conclusions, Findings and Challenges to Future Water Supply Availability

The 2005 UWMP concludes that the District cannot meet demands through 2030 without significant investments to preserve and protect the District's current mix of water supplies, based on hydrologic variability alone without factoring in other compounding risk factors. In addition to protecting current sources, the District also must make investments in a mix of new all weather supplies, storage, dry year transfers or option agreements and maximize opportunities for water conservation.

Hydrologic, institutional and regulatory risks and uncertainties influence the projections of both local and imported water supplies and the anticipated reliability of those supplies. IWRP Study 2003 identified risks and uncertainties that could affect the District's water outlook and used a risk analysis model to evaluate water shortage impacts under different risk scenarios. Risks evaluated include random occurrences of hazards and extreme events, climate change, more stringent water quality standards, fisheries protection measures, no expanded capacity of the Banks pumping plant, and demand growth greater than projected. Results of this analysis indicate that Delta levee failure risk and climate change are among the District's top risks to water supply.

The District manages and addresses risks and uncertainties by building a diversified portfolio of water supply alternatives. This portfolio of existing dry-year supplies and new water supply investments is intended to meet at least 95% of future water demands. To secure long term water supply reliability and regulatory certainty, the District also needs to continue to engage in statewide, regional and local collaboration and partnerships.

Furthermore, the District's long-term water supply planning combines sustainability principles with water resources and watershed stewardship planning. This robust, integrated approach provides a sound planning framework that maximizes protection and efficient use of existing resources while minimizing risks from uncertainties and stranded assets.

III Programs to Sustain Supply Reliability

III-1 Activities to Protect and Augment Water Supplies of the District

In June 2007, the Santa Clara Valley Water District Board of Directors adopted groundwater production charges and treated water surcharge to finance a program of activities to be undertaken in fiscal year 2007-08, to protect and augment water supplies of the District. The program is comprised of activities and service functions in the areas of water supply management and Water Utility Enterprise operations to meet Board adopted end goals and policies.

Table III-1.1 Purpose and Intent: Manage and Provide a Sustainable Water Supply

Inputs	Activities to protect and augment water supplies		End goals & benefits from services provided
• Sources of water supplies • Revenue from Groundwater production charges & other sources of funding	***Operation***	**Services and functions** • Planning & development • Water purchases • Transmission • Treatment • Distribution • Storage & recharge • Conservation & water recycling • Mitigation	• Meet or exceed water quality standards • Reliable supply to meet current demands • Reliable supply to meet future demands • Diversified supply sources • Protect and sustain water resources • Expand water recycling • Maximize water conservation • Mitigate impacts
	Maintenance	• Surface & ground water resources protection & management • Asset protection & management	
	Construction	• Capital improvement • Infrastructure management	

As illustrated in Table III-1.1, program activities and service functions in both water supply management and Water Utility Enterprise operations areas work together to manage and provide a sustainable water supply. Services provided through activities in operations, maintenance and capital improvement programs are designed to meet expected levels of performance in achieving the Board-adopted ends goals.

The District met and, in many instances, exceeded the level of service goals in 2007 and continues to be on track in 2008, despite a dry 2007 water year and unprecedented threats to the District's imported water supplies. As described in earlier sections of this report, local rainfall and reservoir inflow in 2006-07 were at record low. The 10 day shutdown of the State Water Project's Banks Pumping Plant in the Delta in June 2007 and continuing imported water uncertainties combined to result in the Board's adoption of a voluntary 10% water use reduction program in June 2007 and approval of expenditures to bring back 20,000 acre-feet of banked supplies from Semitropic Water Storage District.

Because of the District's sound water supply investments in the past and prudent measures taken to address challenges, there were adequate supplies to meet current demands, treated water quality goals were met and treated water service reliability was maintained. Following are highlights of accomplishments in some of the Water Utility Enterprise program areas to maximize conservation and recycling, protect groundwater resources and existing supplies and infrastructure, as well as to plan and develop long-term supplies to meet future demands.

Water Conservation

The District's water conservation program experienced another successful year in terms of program participation and associated water savings (roughly 41,000 acre-feet/year). Combining education, technical assistance and financial incentives, the District is currently implementing over 20 different programs with most continuing to achieve high levels of participation – high-efficiency washing machines (nearly 10,000 machines), high-efficiency toilets (roughly 4,000 toilets) and Water Wise House Calls (over 2,000 homes). In addition, the District continues to offer a variety of new technologies and programs, including: weather-based irrigation controllers, water efficient landscape rebates, and cooling tower conductivity controllers. Finally, a regional water conservation program and campaign was developed and implemented to promote the voluntary 10% water use reduction program adopted by the board.

Steady progress was made on many medium to long term water use efficiency planning efforts as well as work on the water and energy connection and climate change. The District published *From Watts to Water,* a report that describes the energy and water relationship and estimates the greenhouse gas reduction resulting from conservation and recycling programs. For FY 1992-1993 through FY 2006-2007, the District has saved approximately 1.62 billion kilowatt-hours (kWh) of energy and eliminated the emissions of approximately 381 million kg of carbon dioxide, the equivalent of removing 82,000 passenger cars from the roads for one year.

The U.S. Environmental Protection Agency gave the District a national award for its accomplishments in promoting water use efficiency, making the District the only public agency among six national recipients. The District also received an award from Breathe California as well as several significant grants for its water conservation efforts.

Imported Water

The District supported legal efforts by the State Water Project and Central Valley Project (CVP) contractors to intervene in the Delta smelt litigation, by submitting depositions on potential impacts to the District and analyzing effects of the August 31, 2007, Interim Decision by Judge Wanger. Although the litigation further delayed long-term renewal of the District's CVP contract required by the 1992 Central Valley Project Improvement Act (CVPIA), the District successfully amended its existing CVP contract in January 2007 to implement CVPIA requirements and resolve long-standing financial issues, substantially reducing the District's CVP water costs. As part of that process, a Bilateral Agreement was completed with San Benito County Water District to separate San Felipe Division repayment obligations and improve coordination. Another CVPIA requirement was also fulfilled with U.S. Bureau of Reclamation (USBR) approval of the District's Water Management Plan. To increase long-term operational flexibility, staff gained USBR approval to store CVP water in our Semitropic Water Bank account. In 2007, for the first time, water was withdrawn from this account (20,000 acre-feet) to bolster the District's dry year supplies. Finally, District staff participated in ongoing statewide processes to resolve Bay-Delta ecosystem and water reliability issues. In November 2007, the Bay-Delta Conservation Plan Steering Committee completed Points of Agreement for development of the plan, and in December 2007, the governor's Delta Vision process issued its final recommendations.

[3] See ***Water Use Efficiency Program Year End Report, FY 2006-2007***, for a complete listing of accomplishments

Groundwater Management

Forty-five percent of the potable water use in Santa Clara County in 2007 was from groundwater. The District has implemented numerous groundwater management programs and activities supporting Boards ends policies which state that "The groundwater basins are aggressively protected from contamination and the threat of contamination" and "Groundwater resources are sustained and protected for water supply reliability and to minimize land subsidence." In addition to monitoring and assessing groundwater elevations, groundwater quality (including nitrate and salt water intrusion), and land surface subsidence risks, the District implements a number of programs to ensure water supply reliability and protect groundwater resources. Three new extraction wells, the District's first, were drilled at the San Tomas well field site. When completed in fall of 2008, this project will increase the operational flexibility of the District's water system and provide backup for emergencies to the District's treated water delivery system. Groundwater supplies and groundwater storage are integral to water supply reliability, and District staff evaluates and projects groundwater conditions in support of operations planning decision-making, especially critical in a dry year like 2007. In 2007, staff also initiated evaluations of the feasibility of shallow groundwater recovery and use. Groundwater protection activities include coordinating with regulatory agencies on high-priority contamination cases, including perchlorate, and reviewing and commenting on land use plans, project planning documents and legislation for groundwater supply and groundwater quality impacts. Staff is working with stakeholders to develop guidelines for storm water infiltration and initiating a study on recharge reuse evaluating the impacts of recycled water for irrigation. This project will help develop water quality standards for recharge of recycled water as well.

Groundwater Recharge Program

More than 100,000 acre-feet of surface water was recharged into the three groundwater subbasins during the year. More than $1 million of preventive and corrective maintenance work was completed on the recharge systems at more than 62 facilities on more than 1,000 acres.

Reservoir Operations and Automated Local Evaluation in Real Time (ALERT) System

District staff operated reservoirs in close coordination with the state and federal fishery agencies during the very dry winter and summer of 2007. New operations models have been developed in support of improved operations planning. New technology data loggers were installed at the reservoirs and 39 precipitation Automated Local Evaluation in Real Time system (ALERT) stations to improve reliability and accuracy.

Three new stream flow level sensors were installed to improve low flow alarm systems and two new stream flow gages were installed. In late 2007 reservoir levels in Chesbro and Uvas reservoirs dropped very low. In early December District staff, working with resource agencies, began to pump water from the dead pool of Chesbro Reservoir into the intake of the outlet structure to keep the downstream creek wet.

Environmental and Biological Work

A lot of important environmental planning and biological work has been completed for the Water Utility Enterprise including the programmatic Environmental Impact Report (EIR) for pipelines which allowed the planned shutdowns, inspections and maintenance that are currently underway. Other major efforts such as the Fisheries Aquatic Habitat Collaborative Effort (FAHCE) Program and the Dam Maintenance EIR are also making important progress. In addition, staff developed a very strong and positive working relationship with the resource agencies.

Recycled Water and alternative supplies development

Recycled water uses countywide reached 16,978 acre-feet/year, an increase of 2,000 acre-feet, or 11.7% increase, compared to the same period last year. This exceeded the level of service goal of an increase of 1,200 acre-feet. South County recycled water uses increased by 364 acre feet to 2,035 acre feet, an increase of 22%, from last year. The percentage of recycled water use relative to total water used in the county is approximately 4%.

The District received the WateReuse 2007 Public Education Program of the Year Award from WateReuse Association. The District is one of the two winners nationwide for this award. The award is for the District's multi-pronged water awareness and water recycling outreach program that focused on educating and informing the public on the value of water and water recycling.

The District began initial discussions on alternative ownership and partnership opportunities on the South Bay Water Recycling Program. Water quality improvements are needed in order to really expand recycled water use to meet the future Board ends policy targets (and now more recent City of San Jose Green Vision Goals). Thus a South Bay Advanced Recycled Water Treatment Facility Project is in the design phase.

A number of grant-funded projects were completed including: the South County Partnership project which was the Immediate-term South County Recycled Water Master Plan project, with well over 20% of the costs funded by a State Water Resources Control Board grant; the Brackish Water Desalination Pilot Project which was partially funded by the Department of Water

Resources (DWR) through Metropolitan Water District of Southern California. In addition, the District is continuing its participation in the Bay Area Regional Desalination Project (BARDP), as one of four partner agencies. The BARDP completed its pre-feasibility and feasibility study phases and progressed into the piloting phase, with approximately 50% of the project costs funded by a DWR grant. The BARDP is also authorized to receive $4,000,000 in federal funding for future phases of the project. A $3,000,000 grant funding from DWR for the South Bay Advanced Recycled Water Treatment Facility Project is pending completion of contracting documents.

Water Supply System Baseline Inventory

A draft online web based tool was developed for summarizing and compiling water supply and use data to facilitate centralized data management. A draft inventory of the baseline water supplies and infrastructure was also compiled. This information compilation work constituted the foundation for establishing a systematic tracking and monitoring of the water supply baseline.

Asset Management

Significant investments to existing infrastructure for the purposes of sustaining system reliability and viability into the future have taken place over the past several years. Consistent with District practices over the recent past, infrastructure investments were identified, prioritized, scheduled, and planned through systematic application of advanced asset management strategies and practices. Over the past three years one output of the systematic approach to asset management has been the development of an Annual Maintenance Work Plan (AMWP) which is used to guide infrastructure replacement, overhaul, and inspection activities. The AMWP is a fiscal year specific plan outlining District infrastructure investment strategy. Examples of work in the past year include:

- In December 2007 the U.S. Bureau of Reclamation scheduled its regular inspection of the Pacheco Conduit and Pipeline (Reach 1), including the inlet from San Luis Reservoir and Pacheco Pumping Plant. Follow-up investigation is being done to further assess the condition of the Pacheco Regulating Tank, a key facility needed for water deliveries to Santa Clara and San Benito counties. Participating in the inspection was a consultant team to assess the current condition of the facilities and suggest potential levels of improvement. Pursuant to the Bilateral Agreement with San Benito County Water District, joint recommendations on future Reach 1 condition improvement work will need to be developed, necessitating establishment of specific financial reserves.

- In FY 2007 important investments were made to the District's pumping system. Most notably, one pump rebuild at the Pacheco Pumping Plant (PPP) was completed, and overhaul of a second pump was commenced. Completion of the rebuild started in FY 2007-08, along with completion of two additional pump rebuilds is planned for FY 2008-09. Two additional pump rebuilds are scheduled for FY 2009-10.

- District water treatment plants benefited from focused infrastructure investment as well. Flocculator drive mechanisms at the Rinconada Water Treatment Plant were replaced, repaired and modified to improve the treatment process in FY 2007-08 and will continue into FY 2008-09.

- Penitencia and Santa Teresa water treatment plants required lesser investment in infrastructure replacement or overhaul in FY 2007-08 due to the recent completion of the Stage II improvements at those two facilities. However, in FY 2008-09 large quantities of water quality monitoring instrumentation were replaced in all the treatment plants. Additionally, important investment was made in chemical tank inspection and maintenance.

- Aside from investments made through the operating budget as described above, progress was made in FY 2008-09 on capital projects which directly address aging infrastructure. The Adjustable Speed Drive Replacement Project for the Pacheco Pumping Plant and the Valve Replacement Project at the Rinconada Water Treatment Plant are examples of two such significant efforts.

Table III-1.2 Operating Budget Summary

Operations and Operating Projects	Thousands $		
Description	Actual FY 2007	Adjusted FY 2008	Projected FY 2009
Reliable Supply of Healthy, Clean, Drinking Water:			
Drinking Water Quality	$ 4,658	$ 5,864	$ 5,950
Treated Water Operations	14,335	16,159	18,128
Treated Water Transmission and Distribution	1,700	3,188	2,626
Asset Management	6,851	9,775	9,385
Water Supply Acquisition & Storage	43,298	45,303	45,175
Raw Water Transmission & Distribution	7,645	10,483	10,320
Short-Term Water Supply Planning	2,518	2,410	3,108
Groundwater Management	4,904	7,429	7,561
Long-term Water Supply Planning	5,334	8,719	6,472
Water Supply Development	2,502	3,038	2,988
Resource Protection	5,342	4,908	5,162
Water Recycling	2,584	3,895	4,161
Water Conservation	6,984	5,677	7,956
Water Utility Business Services	9,238	5,749	6,979
Subtotal	**$ 117,892**	**$ 132,597**	**$ 135,971**
Mitigations are Implemented to Protect Watersheds, Streams, and Natural Resources:			
Mitigation for Other Regulatory and CEQA Requirements	265	275	318
Creation of Mitigation Commitments & Opportunities	204	364	390
District Urban Runoff Polution Prevention	71	90	97
Subtotal	**$ 539**	**$ 729**	**$ 805**
Strategic Support Services			
Training	66	40	-
Emergency Services	488	402	1,013
Warehouse Services	624	586	590
Equipment Services	182	204	211
Real Estate Services	9	20	14
Subtotal	**$ 1,368**	**$ 1,251**	**$ 1,828**
Total	**$ 119,799**	**$ 134,577**	**$ 138,604**

Table III-1.3 Capital Budget and Capital Improvement Plan Summary

Capital Program	Thousands $		
Description	Projected FY 2008-09	FY 2009-10 to 2017-18	Ten Year Total
Reliable Supply of Healthy, Clean, Drinking Water:			
Drinking Water Quality	$ 14,879	$ 85,418	$ 100,297
Maintain Integrity of WU Infrastructure	265	7,956	8,221
Treated Water Transmission and Distribution	4,109	-	4,109
Asset Management	39,969	275,677	315,646
Water Supply Acquisition & Storage	30,177	10,863	41,040
Water Supply Development	-	25,203	25,203
Resource Protection	-	11,130	11,130
Water Recycling and Conservation	33,843	26,732	60,575
Subtotal	**$ 123,242**	**$ 442,979**	**$ 566,221**
Mitigations are Implemented to Protect Watersheds, Streams, and Natural Resources:			
Mitigation for Other Regulatory and CEQA Requirements	1,933	3,364	5,297
Environmental Enhancements	11,133	684	11,817
Subtotal	**$ 13,066**	**$ 4,048**	**$ 17,114**
Strategic Support Services			
Facilities Management	1,027	1,612	2,639
Strategic Support Services	7,405	65,827	73,232
Subtotal	**$ 8,432**	**$ 67,439**	**$ 75,871**
Total Capital Program	**$ 144,740**	**$ 514,466**	**$ 659,206**

III-2 Future Capital Improvement, Operating and Maintenance Requirements

For FY 2008-09 as well as the decades ahead, the highest priority work of the District's Water Utility Enterprise is to implement a program of activities to ensure that treated water quality standards are met and that water supplies are diversified and reliable to meet current and future demand. This program of operations, maintenance and capital improvement activities will require continued funding from groundwater production charges and other sources of revenue, as described in section IV of this report.

The proposed FY 2008-09 program as shown in Tables III-1.2 and III-1.3 continues to emphasize activities to protect and maintain existing water supplies and assets and to plan for contingencies, due to both hydrologic uncertainties and regulatory restrictions on imported supplies. The proposed program, if funded accordingly, will enable the Water Utility Enterprise to supply expected demands in 2009 as well as to stay on track to plan for a

reliable supply for the long-term future. The proposed program, however, does not account for potential revenue shortfalls due to extraordinary water use reduction measures or other revenue cutbacks. In both north and south counties, certain needed work in long-term water supply planning and asset management will continue to be deferred due to insufficient financial resources.

In the water supply management area, FY 2008-09 work will include an update of baseline conditions and planning assumptions for both the near- and longer-term future, using the Integrated Water Resources Planning framework. This update is driven by: court-mandated cutbacks in imported supplies from the Delta, new in-county reservoir operating constraints imposed by Department of Safety of Dams, new operating requirements from the FAHCE settlement agreement and its pending environmental compliance, Habitat Conservation Plan preparation and water rights processes. Policy and process developments in the Bay-Delta and statewide would also require the District to re-evaluate its long-term water supply investment options. In addition, staff will provide support to the Board's discussions on ownership or partnership options for the South Bay Recycling system, as well as continue coordination with the cities and the county on general plan reviews and SB 610/221 water supply reviews.

Significant capital investments in water infrastructure are, and will continue to be, necessary for the foreseeable future. Most recently there has been an effort to re-evaluate the Stage II Treated Water Improvement Project for Rinconada Water Treatment Plant (RWTP). The outcome of the reevaluation has been the division of the work into three categories the implementation of which will be staggered over time. Replacement of flocculation equipment, belt filter press equipment, and wash water recovery infrastructure are among the highest priorities at RWTP. Details of the implementation schedule are still being considered and developed, but it is clear that the work associated with the aging infrastructure will come first. Additional details can be found in the report titled Rinconada Water Treatment Plant Improvement Program dated November 2007.

The obsolescence of computer equipment which is now nearing twenty years old is driving a replacement of System Control and Data Acquisition (SCADA) components at Santa Teresa Water Treatment Plant (STWTP). Again, to ensure maintainability and ultimate reliability of the facility, timely replacement of the equipment will be necessary through a future capital project.

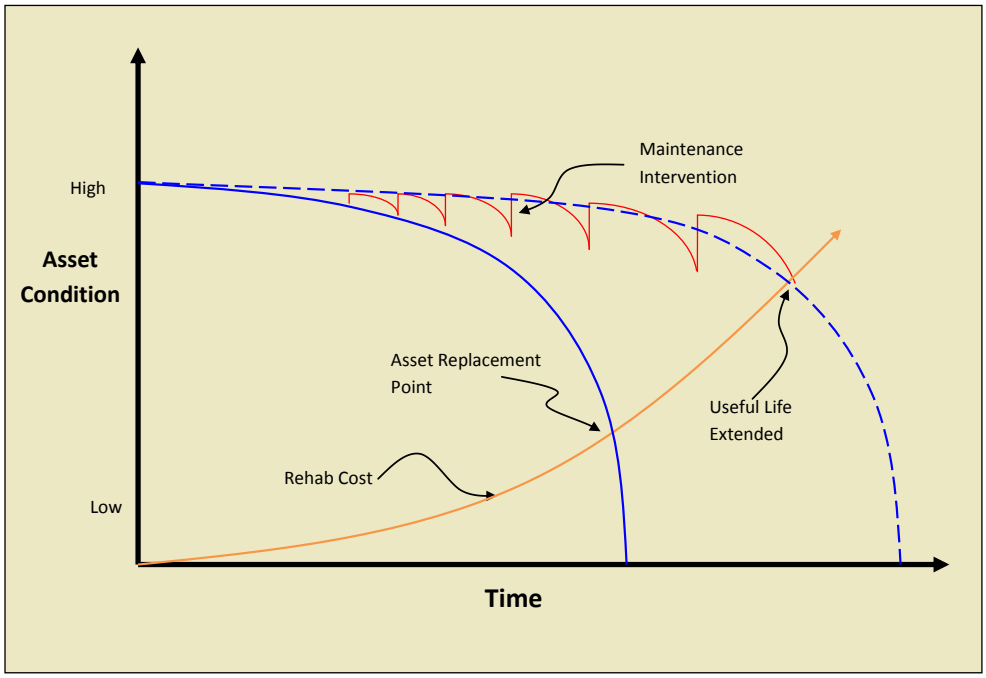
Maintenance requirements are generally increasing as the infrastructure ages. Additionally, the type and magnitude of those requirements are changing. As the numbers of large maintenance activities facing the District continue to mount the Water Utility Enterprise must adapt and find innovative ways to "stay out in front" of the work if our goal of providing sustained, reliable, and cost effective operations and maintenance is to occur.

Historically, relatively large numbers of very small maintenance activities were performed due to the generally young age of District infrastructure with respect to expected service life. As the entire infrastructure ages, maintenance needs manifest as much fewer, yet significantly more complex and costly maintenance activities. This "intermediate level maintenance" (not simple maintenance, yet not as complex as total replacement/construction) requires extensive planning, moderate levels of engineering support, and has a much greater effect on our operational schedules and budget. These emerging needs represent a challenge to the Water Utility Enterprise as it relates to budget, and human resources - specifically, adequate numbers and appropriately skilled staff. Considered in conjunction with the loss of experienced staff due to retirement, the human resource aspect of the challenges facing the Water Utility Enterprise is likely to have long reaching impact and represent a significant challenge into the future.

Investment to protect and sustain our infrastructure is essential, yet there is also the question of investment timing. Striving for optimal investment timing yields the lowest overall costs while achieving the requisite levels of condition necessary to manage risk and meet level of service goals.

The relationship between asset condition, investment timing, and overall lifecycle cost can be illustrated in an asset decay curve. Figure III-2.1 below is a generic asset decay curve which depicts the relationships between asset condition, maintenance intervention, and lifecycle. It is clear that investing prematurely yields an overall higher lifecycle cost due to maintaining the asset above the condition necessary to meet level of service goals incrementally leaving stranded investment. Also apparent, delayed investment results in operating at lower levels of condition which equates to higher levels of risk for longer periods of time which threatens level of services goals, and ultimately results in higher lifecycle costs. Clearly, devoting attention to the timing of the investment as well as to the magnitude of the investment is essential to effective and sustainable asset management.

Figure III-2.1 Generic Asset Decay Curve



Over a longer term, say forty years, significant investment in existing District infrastructure will be required, in addition to investments needed to develop new supplies to meet future demands. For instance, there is a large undefined capital funding need for repair and seismic upgrade of one or several of District-owned dams. Additionally, there are large, relatively better understood investment needs like pipeline renewal or replacement. The exact timing and cost of that work is not perfectly known but needs to be determined through a disciplined program of assessment and capital improvement. Furthermore, a substantial portion of the District's very costly pipeline infrastructure was constructed over a relatively short 15 to 20 year time frame. The need to replace or otherwise rehabilitate that pipeline infrastructure will likely occur over a similarly short time frame in the future, exacerbating the overall financial impact on the distant horizon.

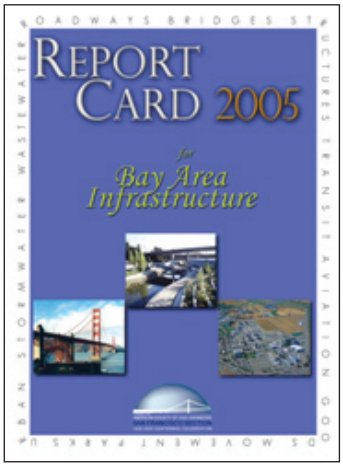
III-3 Conclusions, Recommendations, Opportunities and Challenges in the Management of Water Resources for Present and Future Beneficial Uses within the District

As stated in the California Water Plan Update 2005, "The way we manage California's water resources is changing. We need to consider a broader range of resource management issues, competing water demands, new approaches to water supply reliability, and new ways of financing." Furthermore, the state spelled out its expectation that: "Integrated regional water management is the future for California because it will help regions diversify their water portfolio strategies and get the most from local, state and federal resources and funding." These two statements constituted a directive to regions around the state, including Santa Clara County, to become more self-reliant and less dependent on the state for water supplies. The court-ordered restrictions limiting Delta exports, together with heightened awareness of the vulnerability of Delta levees, are further evidence that without greater investment in reliable Delta conveyance, conditions in the Delta will remain unsustainable and the District's imported supplies will continue to be jeopardized.

The year 2007 was also when "climate change" became a household word. Increasingly, water resources managers understand that they will have to implement actions to mitigate for and adapt to the impacts from climate change. We foresee local, voluntary actions will progressively become state-mandated requirements, as conditions for receiving state funding or as part of the statewide reporting requirements.

The District is well aware of the challenges to its water supplies, as documented in its 2003 Integrated Water Resources Planning (IWRP) Study and 2005 Urban Water Management Plan. District staff is, once again, updating its water supply planning assumptions to reflect changed conditions and new information. Although the work is in its beginning stages, we expect the key findings from 2003 will continue to be valid, namely:

1. It pays to be reliable.
2. Securing the baseline is the top priority for ensuring reliability.
3. A mix of investments in all-weather supplies, storage, and dry-year response best meets planning objectives.
4. Local supply development decreases vulnerability to risk.



ASCE - 2005 Report Card for Bay Area Infrastructure C - Water

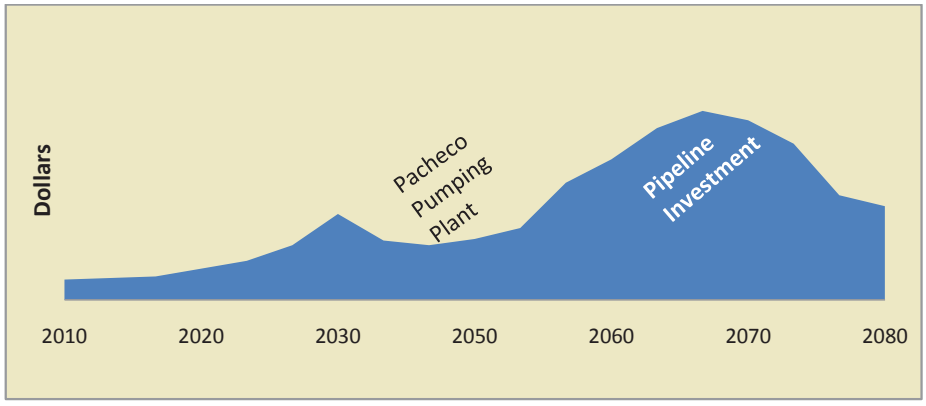
The quality of drinking water is good. However, significant invest-ments are needed to address the recommended renewal and replacement, maintenance, security, and reliability funding for the Bay Area's water infrastructure, as well as to prevent further deterioration of the existing systems. These investments will increase sustainability and will insure water supply and infrastructure reliability into the future.

A number of the 2003 IWRP recommendations were adopted by the District Board as ends policies and planning goals. Performance measures were further derived from the ends policies and will continue to serve as guidelines for measuring the levels of service provided by water supply and Water Utility Enterprise programs.

The 2005 report card issued by American Society of Civil Engineers (ASCE) for Bay Area infrastructure highlighted the need for significant investments to address aging water infrastructure and to improve reliability and sustainability. Prior to issuance of the ASCE report card, the District in 2003 determined existing levels of service (LOS) and desired LOS to serve as guidelines for the asset management program. Performance measures were established to track the results of implementing the District's asset management program.

Over the next few decades, significant investment is needed to protect existing Water Utility Enterprise assets and to augment with new water supply development. The curve below (Figure III-3.1) reflects a conceptual portrayal of the funding likely needed to address existing infrastructure renewal/replacement needs far in the future. The graph is derived by applying an inflation factor to original construction cost over the expected service life of an asset and projecting that inflated cost to the future renewal/replacement point. Performing the calculation for all assets in such a manner develops an overall estimated funding need adjusted for inflation often called a "Nessie" curve.

Figure III-3.1 "Nessie" Curve of Funding Needs for Infrastructure Replacement/Renewal



[4] The ***"Nessie"*** curve gets its name from the characteristic humps which resemble those of the fabled Loch Ness Monster.

In addition to infrastructure replacement needs, significant funding will be needed for future water supply development, to supplement reduced imported water allocations and to meet new demands. Solutions to the very large funding need in the future must be considered now in order to effectively manage the financial sustainability of the Water Utility Enterprise. The solution will likely take a programmatic, multifaceted approach including:

1. Needs assessment: continued assessment of infrastructure and water supply needs using asset management best practices and integrated water resources planning framework to address water supply challenges under changing conditions.

2. Financing: assess viability of existing water revenue mechanism to meet future funding needs, explore and add alternative financing mechanisms to the Water Utility Enterprise portfolio, and amass the necessary financial reserves designated for needed operating and capital programs and projects.

3. Human resources: evaluate work force skill sets and the number of staff required to adequately address the changing nature of the maintenance work anticipated.

4. Programmatic and integrated portfolio approach: Change the fundamental approach to work - approaching each large maintenance task individually as the District has done historically will not accommodate the greater amount and complexity of work that now faces the Water Utility Enterprise. The need to protect and maintain the quantity, quality and variety of sources of supplies requires the District to implement an integrated water resources management program, instead of the historical single-purpose type of water supply development.

5. Efficiencies: find ways to streamline and create efficiencies through better use of contracting services, more efficient procurement utilizing Standing Orders (SO), vendor supported inventories, multi-year negotiated contracted services for pipeline and tank inspection, greater investment in technical and planning capacity, and uniformity of design to ensure consistency.

IV Financial Outlook of the District's Water Utility System

IV-1 Introduction

The purpose of this section is to describe the short term and long term financial requirements for achieving the Board's ends policies and to present a funding approach. This section summarizes the recommended water charges for FY 2008–09 and the multi-year financial analysis that serves as the foundation for the recommended groundwater charges in each zone. The multi-year analysis includes a series of increases in water charges in each zone for the next ten years in combination with additional debt financing. Appendix B describes the Water Utility Enterprise revenue sources, cost centers, and reserves as well as Board policy regarding finances.

The District's major sources of revenue are from the imposition of charges on groundwater production and from contracts for the sale of treated surface water produced by its three treatment plants. The District also receives revenue from property tax, interest earnings, grants, capital reimbursements and other sources. The District assesses the need for groundwater charges annually and, in accordance with state law, prepares this report to describe the activities undertaken to provide a water supply, along with the associated capital, maintenance, and operating requirements.

The District's revenue requirements remained relatively stable for the period from 1993 to 1998 and charges were held constant. In 1998, the utility made the first of a series of capital investments required to comply with new water quality regulations. The District also invested more in recycled water, water banking, and infrastructure repair and maintenance to improve water supply reliability. Between FY 2003–04 and FY 2004–05, payments for water purchased from the federal government doubled. Consequently, the North County groundwater extraction charge increased from $240 per AF in FY 1997–98 to $405 per AF in FY 2004–05.

In the South County/Coyote Valley, the M&I groundwater extraction charge increased from $108/AF in FY 1997–98 to $200 per AF in FY 2004–05. The increases were necessary due to the higher payments for purchased water from the federal government, expansion of services in the areas of recycled water, water conservation, asset management, security, and groundwater quality management, and maintenance work on facilities and pipelines.

In FY 2005-06 and FY 2006-07, staff made a concerted effort to reduce costs and associated water charges in accordance with the CEO's vision of "Getting Cleaner, Greener, and Leaner Together." Staff took several actions toward that vision including reducing permanent positions, reducing discretionary reserves and postponing capital and operations projects. Consequently, the Board adopted groundwater production charges in FY 2005–06 and FY 2006–07 that were much lower than projected back in April of 2004.

Last year, staff revised the construction cost inflation assumption used in the financial modeling in response to unprecedented construction cost escalation that is forecasted to continue for years to come. Staff is assuming a 7% per year inflation assumption plus a 10% market condition adjustment in the year of bid. This assumption change significantly impacted the groundwater charge projection for FY 2007-08 and beyond.

This year's groundwater production charge projection is illustrated in Figure IV-1.1. It reflects a range of potential groundwater production charges over the next ten years depending on the level of service that would be provided. Staff analyzed several different levels of service in terms of operations and capital projects. The high end of the range represents the groundwater production charges required to fund all of the operations and capital projects identified by staff to meet the Board's ends policies over the next few years. While staff has identified as many projects as possible, there are several initiatives in progress and/or potential future uncertainties that could result in the identification of additional capital or operations projects. These include, but are not limited to:

- Investments associated with the Coyote Valley Specific Plan
- Investments associated with North San Jose Development
- Potential Integrated Water Resources Plan (IWRP) investments that may be required due to future changes in water supply or demand conditions
- Impacts of the Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP)
- District's participation in potential solutions to Bay Delta water quality problems
- San Felipe Division facility refurbishments

The lower end of the range represents staff's recommended groundwater production charges for FY 2008–09 and the corresponding future trajectory based on the assumption that operating services will continue at the same level provided in the FY 2007–08 budget. The recommended charges are consistent with the prior year groundwater production charge projection. Although the Board increased groundwater production charges in FY 2007–08 to help fund preventative and corrective maintenance costs at existing District facilities, some additional unmet operational needs identified by Water Utility

Enterprise staff would continue to be delayed indefinitely unless efficiencies can be found. If unmet operational needs remain unfunded, then the ability of staff to achieve the Board's ends policies in the long term would be sacrificed. The potential impacts include increased risk of (1) service interruptions, (2) higher corrective maintenance costs to repair facilities that have not been well maintained and (3) reduced ability to respond to drought.

FIGURE IV-1.1 Ten-Year Water Charge Projection

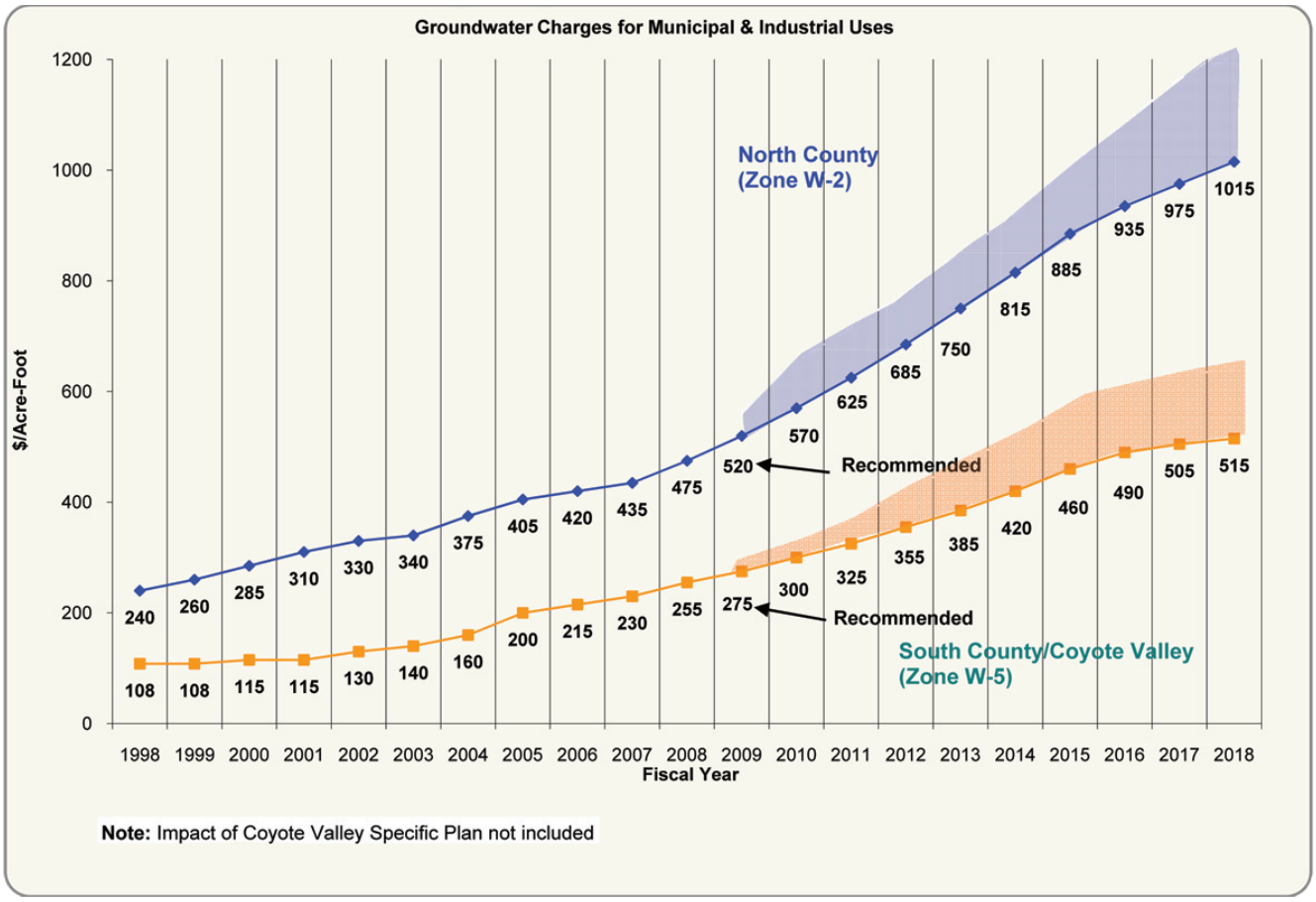


Table IV-1.1 shows groundwater production and other charges in fiscal years 2006-07 and 2007-08. The final column contains the recommended groundwater production charges for FY 2008-09, which are in accordance with the pricing policy described in Appendix B.

TABLE IV-1.1 Summary of Water Charges (Dollars per Acre Foot, $/AF)

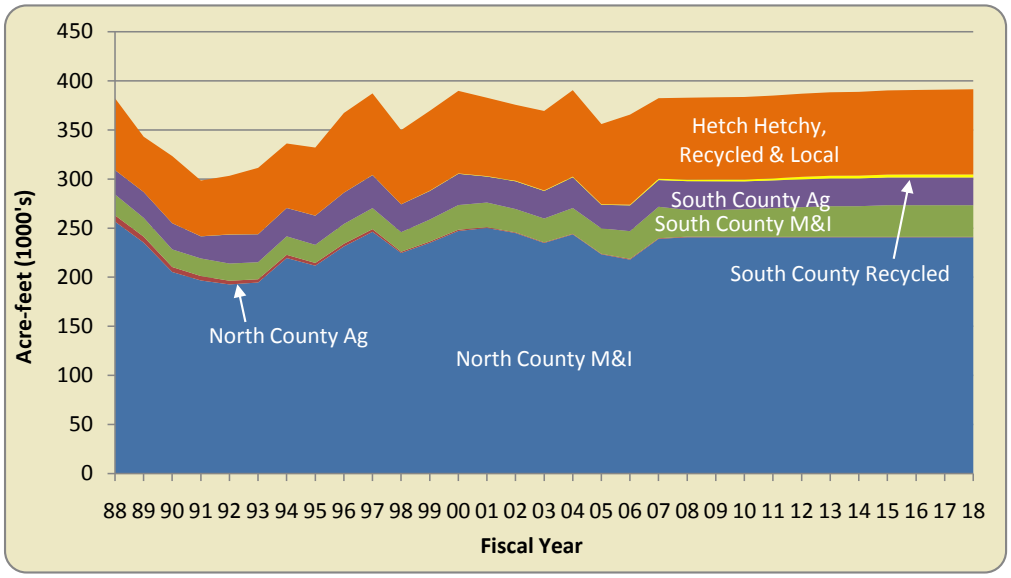
	Dollars per Acre Foot		
	2006–07	**2007–08**	**Recommended 2008-09**
Zone W-2 (North County)			
Groundwater Production Charge			
Municipal & Industrial	435.00	475.00	**520.00**
Agricultural	21.50	15.50	**16.50**
Net Agricultural (With Mobile Lab & INAAP Discounts)	14.00	15.50	**16.50**
Zone W-5 (South County/Coyote Valley)			
Groundwater Production Charge			
Municipal & Industrial	230.00	255.00	**275.00**
Agricultural	21.50	15.50	**16.50**
Net Agricultural (With Mobile Lab & INAAP Discounts)	14.00	15.50	**16.50**
Recycled Water Charges			
Municipal & Industrial	195.00	244.00	**275.00**
Agricultural	40.50	40.50	**41.50**
Zone W-2 (North County)			
Basic User Charge	435.00	475.00	**520.00**
Treated Water Surcharge			
Contract	100.00	100.00	**100.00**
Non-contract*	60.00	100.00	**100.00**
Total Treated Water Contract Charge	535.00	575.00	**620.00**
Total Treated Water Non-contract Charge	495.00	575.00	**620.00**

* The non-contract surcharge discount was eliminated in FY 2007–08 since the incentive to offer the discount no longer exists and because of dry surface water conditions.

Figure IV-1.2 illustrates historical and projected water demand. The projected demand is based on the 2005 Urban Water Management Plan and assumes average weather conditions. The total District-managed demand projection including South County recycled water is relatively flat at roughly 300K AF per year, while total county demand is projected to be approximately 385K AF per year. Toward the beginning of this years' groundwater charge setting process, staff considered a drought scenario that included a 10% reduction in demand in FY 2008-09. That scenario included an incremental increase in the groundwater charge to offset lost revenue. However heavy storms in January and February have tempered drought fears such that the staff

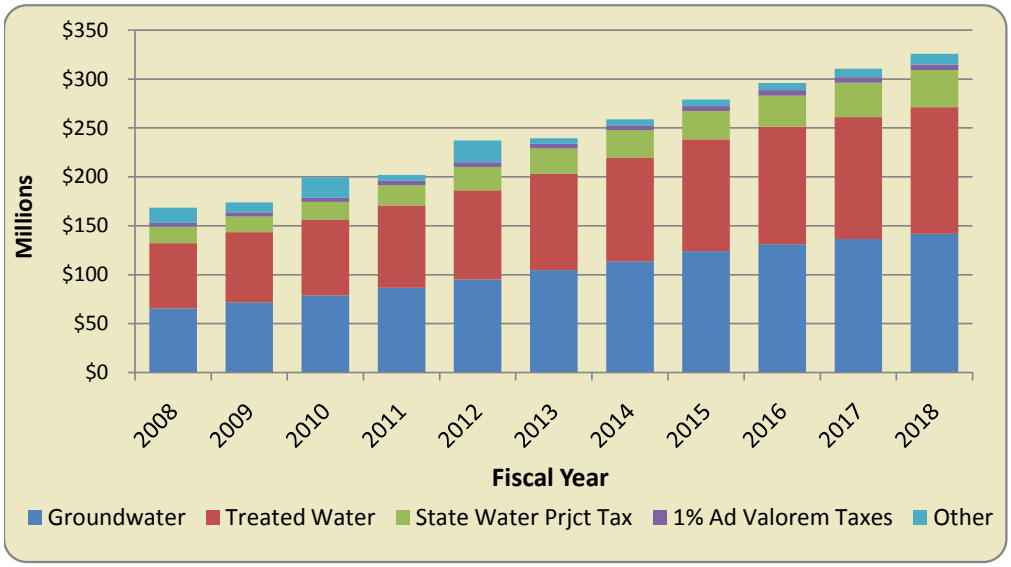
recommended charges for FY 2008-09 are based on average year demand. Staff is still concerned about restrictions on how much imported water can be pumped through the Sacramento-San Joaquin Delta into the county and will be watching that closely.

FIGURE IV-1.2 Historical and Projected Water Demand



Water Utility revenues are projected to increase from $169 million in FY 2007–08 to $326 million in FY 2017–18 as shown in Figure IV.3 based on the low end of the groundwater charge projection. Groundwater and treated water comprise the majority of Water Utility Enterprise operating revenue which is projected to increase at 7.4% per year on average. The State Water Project (SWP) tax is projected to grow at roughly 8.4% per year in line with SWP imported water contract obligations. One percent ad valorem property taxes in South County are projected to increase at 6% per year due to the faster rate of development and growth in that part of the county, while in other areas the projection is for growth of 3.6% per year. Other revenue includes surface water, recycled water, interest earnings, grants, capital reimbursements and other miscellaneous revenues.

FIGURE IV-1.3 Water Utility Enterprise Revenue Forecast



IV-2 Review of District's Finances for Fiscal Years 2006–07, 2007–08, and 2008–09

The District uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. Accounts related to activities of the Water Utility have been segregated into one fund. Revenue accounts include groundwater production, treated water, property taxes, interest earnings, reimbursements, grants and other. Cost accounts include both direct and indirect costs associated with Water Utility Enterprise projects and activities. Within the Water Utility Fund, District staff track revenues and costs associated with the South County Zone separately so that the groundwater charge for services that benefit the South County Zone can be calculated.

The District's financial plans are designed to carry out the direction of the Board's ends policies on water supply and quality. The FY 2008–09 projection reflects an increase in overall spending driven primarily by capital spending to maintain or upgrade the District's aging facilities.

Table IV-2.1 shows the revenue requirements that are the basis for the recommended water charges, breaking out operations, water purchases, extraordinary items, and capital for fiscal years 2006–07 through 2008–09. The net requirements are the revenues that must be available from water sales, property taxes, and other sources after using debt financing and allowing for funds added to, or used from reserves. Reserves provide a balancing mechanism to smooth fluctuations in the level of revenue that must be raised from groundwater charges in a single year. Appendix B gives a description of each of the Water Utility Reserve Funds.

TABLE IV-2.1 Overview of Water Utility Enterprise Revenue Requirements ($ in Millions)

	Millions $		
Revenue Requirements	**Actual 2006-07**	**Adjusted Budget 2007-08**	**Estimated Budget 2008-09**
Operations	$ 81.00	$ 93.10	$ 97.00
Debt Service	7.50	11.90	13.10
Water Purchases			
Federal Water	25.40	24.20	23.50
StateWater	13.50	17.30	18.10
Extraordinary Items (Includes Advances, Repayments and Transfers)	2.40	8.10	2.80
Capital Projects	58.10	73.90	153.10
Total Requirements	**$ 187.90**	**$ 228.50**	**$ 307.60**
Increase/(Decrease) in Reserves	(40.80)	75.50	(60.60)
Carryforward Reserves	16.70	(11.30)	(9.70)
Debt Proceeds	(5.60)	(124.00)	(63.60)
Net Requirements from Water Utility Revenues	**$ 158.20**	**$ 168.70**	**$ 173.70**

Fiscal Year 2006–07

Actual revenue for FY 2006-07 was $158.2 million, approximately $5.4 million higher than budgeted. The increase is due to $2.3 million higher interest earnings and higher miscellaneous revenue than anticipated including a $1.2 million reimbursement from Olin Corporation.

Actual operations outlays were $6.8 million lower than the adjusted budget driven by $3.9 million unspent budget on the perchlorate project as the District is repackaging its effort to obtain State and Tribal Assistance Grant (STAG funding).

Unspent capital budget was carried forward to FY 2007-08 consistent with accounting practices. Several capital projects were closed resulting in $2.9 million worth of budget balance remaining moving to future years' capital reserve.

Fiscal Year 2007–08

Actual revenue for FY 2007-08 is trending on track to meet budget at year end as year to date water usage is at average levels. It is likely that the District's request for voluntary 10% conservation has prevented water usage from exceeding average levels given the dry conditions.

Operations costs are trending slightly below the adjusted budget, which includes a $3.8 million budget adjustment to withdraw water supplies from the Semitropic Groundwater Banking Program to bolster surface water supplies. Capital spending is anticipated to be at budget.

The reserve balance is expected to increase by $75.5 million due to the issuance of $124 million of long term debt in FY 2007-08, and is expected to decrease in FY 2008-09 as the long term debt proceeds are used for capital expenditures.

Fiscal Year 2008–09

Estimated revenue for FY 2008-09 is $173.7 million, only 3% higher than the FY 2007-08 budget as the FY 2007-08 budget includes a one-time $4.5 million receipt for the sale of the San Tomas Wellfield property. Operations costs are expected to be $3.8 million more than the FY 08 budget due to inflation. The cost of purchased water from the federal and state projects continues to be the largest expense item at $23.5 million and $18.1 million, respectively.

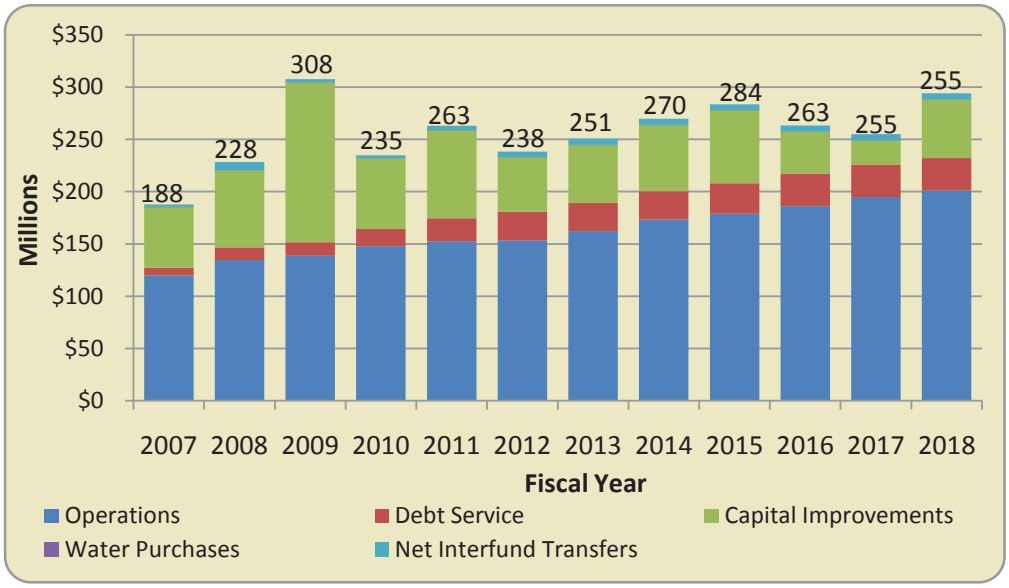
In FY 2008-09 the capital appropriation is estimated to be $153.1 million. A substantial portion of this estimate will fund the modification of the Lenihan Dam outlet structure, the Recycled Water Advanced Treatment Facility, and facility renewal of the Rinconada Water Treatment Plant.

For FY 2008-09, the prior Table IV-1.2 shows total requirements of $307.6 million to be met from a combination of current revenues, reserves, and debt. The recommended water charges previously shown in Table IV-1.1 will generate $145 million in revenues from water usage. Property tax revenues are projected to be $20.8 million, and interest earnings and other revenue are estimated to be $7.9 million for a total of $173.7 million. The table shows a net decrease in reserves of $60.6 million due to the expected usage of long term debt proceeds for capital expenditures.

IV-3 Overview of Operating and Long-term Capital Plans

To develop a water charge structure that will support planned work, staff analyzes the immediate needs of the District as well as anticipated requirements in the years to come. The projected outlays for the next ten years are shown in Figure IV-3.1 and include capital, operating and water purchase costs.

FIGURE IV-3.1 Water Utility Enterprise Ten-year Program - Projected Uses of Funds



Operations costs are projected to increase at an average of 3.9% per year over the next ten years, driven mainly by inflation. Annual debt service is projected to increase by $19.3 million between FY 2007–08 and FY 2017–18, due to debt financing of the capital improvement program. The capital projection is based on the proposed FY 2008-09 5-Year Capital Improvement Program (CIP) and includes funding $668.9 million worth of capital projects between FY 2008-09 and FY 2017-18.

Capital Improvement Plans

The District constructs and maintains reservoirs, pipelines, recharge ponds, and water treatment plants that are needed to achieve the Board's ends policies. On an annual basis, the District conducts a process to plan for capital improvements and identify the resource needs and financial constraints to implement the projects. The result of this process is Board approval of a 5-Year Capital Improvement Plan (CIP).

Table IV-3.1 shows the projected capital expenditures for the next ten fiscal years by project based on the current 5-Year CIP and a projection of the projects that would be funded in the subsequent 5 years. The cumulative investment between FY 2008–09 and FY 2017–18 is projected to be approximately $668.9 million (inflated). A large portion of the capital program is dedicated to asset management of Water Utility Enterprise facilities throughout the county and is based on a program that was started in January 2002 to provide a better basis for identifying long-term capital rehabilitation and replacement needs. The goal of the Asset Management program is to lower the cost of asset ownership and improve system reliability by establishing a life-cycle preventative and corrective maintenance schedule for each of the District's assets as well as renewal and replacement schedules.

TABLE IV-3.1 Capital Improvement Projects: Fiscal Years 2008–09 through 2017–18

	Thousands $, Inflated							
Capital Project	**FY09 Projection**	**FY10 Projection**	**FY11 Projection**	**FY12 Projection**	**FY13 Projection**	**FY14 Projection**	**FY 15-18 Projection**	**Total FY 09-18**
SOURCE OF SUPPLY								
Dam Instrumentation*	$ 6,720	$ 330	$ -	$ -	$ -	$ -	$ -	$ 7,050
Recycled Water Masterplan - Short-Term Implementation*	3,775	6,333	-	0	-	-	-	10,108
Water Efficient Demonstration Garden	74	-	-	0	-	-	-	74
Recycled Water Advanced Treatment Facility WPCP	29,994	12,449	7,950	0	-	-	-	50,393
San Luis Reservoir Low Point Improvement - Planning	-	233	-	0	-	-	-	233
Pacheco Pumping Plant Regulating Tank Recoating	214	-	-	0	-	-	-	214
San Felipe Communications Cable Replacement*	429	1,765	-	0	-	-	-	2,194
Almaden Dam Outlet Works Improvements	554	578	1,204	5,057	9,647	274	-	17,314
NRDA Enhancement, Jacques Gulch Restoration	10,008	402	282	0	-	-	-	10,692
Calero/Fellows Dike Improvement	576	217	6,341	177	-	-	-	7,311
Lenihan Dam Outlet Modifications	29,104	706	-	0	-	-	-	29,810
Pacheco Pumping Plant ASD Replacement*	10,403	988	498	519	430	-	-	12,838
Coyote Dam Blockhouse Electrical Upgrade	-	-	170	412	-	-	-	582
SCADA Wireless System Overhaul for Dams and Reservoirs*	-	-	915	971	1,031	-	-	2,917
Source of Supply Subtotal	**$ 91,851**	**$ 24,001**	**$ 17,360**	**$ 7,136**	**$ 11,108**	**$ 274**	**$ -**	**$ 151,730**
RAW WATER TRANSMISSION & DISTRIBUTION								
South County Pipeline Right of Way Acquisition*	265	211	1,928	-	-	-	-	2,404
Vasona PP Electrical Upgrades	-	-	-	-	123	544	6,091	6,758
IRP2 Backup Raw Water Control Center at Almaden*	-	-	36	125	897	694	-	1,752
Alamitos Diversion Dam Improvements	2,444	49	-	-	-	-	-	2,493
Coyote Diversion Dam Improvements	213	2,425	63	-	-	-	-	2,701
Kirk Ditch Improvements	680	-	-	-	-	-	-	680
Kirk Diversion Dam Improvements	1,642	448	-	-	-	-	-	2,090
Kirk Diversion Fish Screen	1,125	-	-	-	-	-	-	1,125
Main Avenue Pipeline*	1,159	6,349	-	-	-	-	-	7,508
Almaden-Calero Canal Rehabilitation	644	6,545	1,226	388	-	-	-	8,803
FAHCE Stevens Creek Fish Ladder at Evelyn Ave - 90%	-	-	920	1,626	-	-	-	2,546
FAHCE Stevens Creek Fish Ladder at Moffett Ave - 90%	-	-	908	1,662	-	-	-	2,570
FAHCE Stevens Creek Fish Ladder at Fremont Ave - 90%	-	-	269	748	3,680	-	-	4,697
Page Desilting System Improvements	445	818	-	-	-	-	-	1,263
FAHCE Stevens Creek Dam Portable Multi-Port Outlet - 90%	-	-	233	1,084	-	-	-	1,317
Santa Clara Valley Recharge Ponds	-	349	363	7,251	12,271	4,969	-	25,203
IRP2 Self-Sufficient SCADA System	693	722	2,338	1,973	-	-	-	5,726
Stevens Creek Diversion	-	-	156	-	-	-	-	156
Penitencia Fish Facilities Modifications	-	290	240	189	992	-	-	1,711
Pipeline Hydraulic Reliability Upgrades	-	-	283	-	-	-	-	283
Treated Water Pipline Turnout Improvement	-	-	283	-	-	-	-	283
FAHCE Stevens Creek Fish Facility Enhancement Planning - 90%	1,395	1,454	-	-	-	-	-	2,849
Raw Water Transmission & Distribution	**$ 10,705**	**$ 19,660**	**$ 9,246**	**$ 15,046**	**$ 17,963**	**$ 6,207**	**$ 6,091**	**$ 84,918**
TREATED WATER TRANSMISSION & DISTRIBUTION								
Water Protection*	3,953	-	-	-	-	-	-	3,953
Santa Clara Distributary Turnout	156	-	-	-	-	-	-	156
IRP2 Additional Line Valves	-	-	-	-	-	-	9,509	9,509
Treated Water Transmission & Distribution Subtotal	**$ 4,109**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 9,509**	**$ 13,618**

TABLE IV-3.1 continued...Capital Improvement Projects: Fiscal Years 2008–09 through 2017–18

	Thousands $, Inflated							
Capital Project	**FY09 Projection**	**FY10 Projection**	**FY11 Projection**	**FY12 Projection**	**FY13 Projection**	**FY14 Projection**	**FY 15-18 Projection**	**Total FY 09-18**
WATER TREATMENT								
Water Treatment Plants SCADA Upgrades	$ 432	$ 1,087	$ 283	$ 141	$ -	$ -	$ -	$ 1,943
PWTP Maintenance Building	-	128	136	-	-	-	-	264
PWTP Chemical Systems Upgrade	1,644	150	-	-	-	-	-	1,794
PWTP Standby Power Upgrade	232	-	-	-	-	-	-	232
PWTP Backwash Pump Replacement	359	33	-	-	-	-	-	392
WTIP Mitigation, PWTP Landscape and Site Improvements	146	-	-	-	-	-	-	146
STWTP Incompatible Materials	1,974	2,369	163	-	-	-	-	4,506
WTIP Mitigation, STWTP Landscape Improvements	392	37	162	-	-	-	-	591
RWTP Chemical System Upgrade	2,476	717	57	-	-	-	-	3,250
RWTP Valve Replacements	1,428	54	-	-	-	-	-	1,482
IRP2 Seismic Study and Retrofit of WTP Ops Bldg	3,330	1,167	11,943	8,276	5,992	-	-	30,708
RWTP Chemical Storage Structure Seismic Upgrades	-	413	2,841	401	209	-	-	3,864
RWTP BL-1 Valve & Vault Replacement	-	-	-	-	-	-	1,798	1,798
PWTP Washwater Clarification Facility	-	-	-	-	510	613	7,354	8,477
PWTP Plant Water Pumps Modifications	446	1,758	168	-	-	-	-	2,372
RWTP FRP SCADA Room	154	488	17	-	-	-	-	659
RWTP FRP Clarification System Improvement	14,433	1,520	226	-	-	-	-	16,179
RWTP FRP Filtration System Improement	-	1,107	6,868	1,297	614	-	-	9,886
RWTP FRP Washwater Recovery System	1,073	1,118	7,541	536	-	-	-	10,268
RWTP FRP Clearwell and Site Improvement	-	977	6,716	1,061	369	-	-	9,123
RWTP FRP Main Pump Valves Replacement	-	293	305	1,663	233	-	-	2,494
RWTP FRP Primary Electrical System Improvement	636	1,325	9,053	1,309	-	-	-	12,323
RWTP FRP Solids Handling System Improvement	488	508	2,898	118	-	-	-	4,012
PWTP Ammonia System Relocation and Upgrades	-	-	-	668	3,823	336	-	4,827
PWTP Cooling Water Pump Modifications	-	-	-	520	1,574	85	-	2,179
PWTP Filter Basin Covers	-	-	-	393	771	-	-	1,164
PWTP Large Valve Automation	-	-	-	886	175	-	-	1,061
RWTP Filter Polymer System Improvement	-	-	-	-	-	230	1,408	1,638
RWTP Advanced Treatment	-	-	-	-	-	-	54,152	54,152
RWTP Reliability Improvement	-	2,172	1,697	5,423	4,668	48,910	78,415	141,285
Water Treatment Subtotal	**$ 29,643**	**$ 17,421**	**$ 51,074**	**$ 22,692**	**$ 18,938**	**$ 50,174**	**$ 143,127**	**$ 333,069**
ADMINISTRATION & GENERAL								
Corporation Yard Relocation - 38%*	282	-	-	-	-	-	-	282
ISMP Computerized Maintenance Management - 50%	37	8	-	-	-	-	-	45
ISMP Water Resource Information System*	313	109	-	-	-	-	-	422
Microwave Telecommunications System - 63%*	745	571	605	436	-	-	-	2,357
CPS Labor Collaborative & Rela*	137	120	122	166	169	179	568	1,461
Workforce and Knowledge Development - CPS*	2,829	2,493	2,531	3,426	3,491	3,714	11,730	30,214
Quality Management-CPSD*	138	125	129	128	138	96	628	1,382
CEQA Administration-CPSD*	102	93	95	95	101	71	464	1,021
CIP Development & Admin - CPSD*	142	125	127	172	175	186	589	1,516
Construction-Mgt&Admin*	580	528	544	539	577	404	2,646	5,818
CADD-Mgt & Admin*	85	78	80	79	85	59	389	855
Survey - Mgt & Admin*	457	415	428	424	454	318	2,082	4,578
Real Estate - GSD Mgt & Admin*	540	492	507	502	537	376	2,464	5,418
CPSD Management & Support*	2,045	1,861	1,917	1,899	2,033	1,422	9,325	20,502
Administration & General Subtotal	**$ 8,432**	**$ 7,018**	**$ 7,085**	**$ 7,866**	**$ 7,760**	**$ 6,825**	**$ 30,885**	**$ 75,871**
Projected FY08 Carry Forward	9,720							9,720
TOTAL	**$ 154,460**	**$ 68,100**	**$ 84,765**	**$ 52,740**	**$ 55,769**	**$ 63,480**	**$ 189,612**	**$ 668,926**
Less Transfers	**$ 153,083**	**$ 67,412**	**$ 84,160**	**$ 52,304**	**$ 55,769**	**$ 63,480**	**$ 189,612**	**$ 665,820**

Note: The asterisked projects would benefit the South County/Coyote Valley and therefore would be funded in part or in whole by the South County/Coyote Valley.

Table IV-3.2 shows the lower priority or deferred capital projects that are not funded under the recommended charges for FY 2008–09 and the corresponding groundwater charge projection. The postponed capital projects total approximately $619.7 million (inflated) over the next ten years. The upper bound of Figure IV-1.1 illustrates the required water charge projection necessary to fund the postponed capital projects.

TABLE IV-3.2 List of Capital Projects Postponed Indefinitely

	Thousands $, Inflated							
Capital Project	**FY09 Projection**	**FY10 Projection**	**FY11 Projection**	**FY12 Projection**	**FY13 Projection**	**FY14 Projection**	**FY 15-18 Projection**	**Total FY 09-18**
SOURCE OF SUPPLY								
Anderson Reservoir Bank Erosion Repair*	$ 184	$ 366	$ 2,943	$ 2,605	$ -	$ -	$ -	$ 6,098
Dam Rehabilitation Placeholder*					30,000	30,000	90,000	150,000
Guadalupe Dam Outlet Works Rehab		269	640	720	5,302		0	6,931
Calero Dam Outlet Works Rehab		157	525	395	3,888		0	4,965
San Luis Reservoir Low Point Improvement - Design and Construction*				28,138	28,982	29,851	30,747	117,718
IRP2 East Side Well Field		3,682	3,839	4,799	14,134	22,821	88,275	137,550
IRP2 West Side Well Field		827	862	2,395	2,496	6,310	41,287	54,177
Recycled Water Masterplan - Long Term Implementation*				9,330	116	0	0	9,446
Recycled Water - Advanced Treatment Plant - Coyote Valley		1,697	219	2,251	9,866	7,120	4,252	25,405
Source of Supply Subtotal	**$ 184**	**$ 6,998**	**$ 9,028**	**$ 50,633**	**$ 94,784**	**$ 96,102**	**$ 254,561**	**$ 512,290**
RAW WATER TRANSMISSION & DISTRIBUTION								
Valve 906 Low-Flow Bypass	117	28					0	145
San Felipe Pipeline Upgrades*					505	449	10,204	11,158
Santa Clara Tunnel Leakage and Pacheco Conduit Dewater*					507	246	2,923	3,676
Church Avenue Diversion*	0	0	1,445	452	2,420	69	0	4,386
Coyote Pumping Plant ASD Replacement	345	393	512	2,892	2,725	2,639	0	9,506
South County Recharge Ponds*	0	0	0	0	1,433	616	37,555	39,604
Madrone Avenue Pipeline*	0	0	993	1,035	6,627		0	8,655
Raw Water Transmission & Distribution Subtotal	**$ 462**	**$ 421**	**$ 2,950**	**$ 4,379**	**$ 14,217**	**$ 4,019**	**$ 50,682**	**$ 77,130**
WATER TREATMENT								
RWTP Waste Stream Separation Modification				0	0	0	1,043	1,043
WTP Filter Backwash Aid		0	0	0	0	0	2,872	2,872
STWTP Chemical Tank MOVs & Instrumentation	167	396	663	0	0		0	1,226
Water Treatment Subtotal	**$ 167**	**$ 396**	**$ 663**	**$ -**	**$ -**	**$ -**	**$ 3,915**	**$ 5,141**
TREATED WATER TRANSMISSION & DISTRIBUTION								
Milpitas Pipeline Terminus Valve & Vault	98	111	165	1,135	264		0	1,773
Treated Water Air Valves Replacement	773	817	820	4,954	4,747	4,822	4,779	21,712
Treated Water Transmission & Distribution Subtotal	**$ 871**	**$ 928**	**$ 985**	**$ 6,089**	**$ 5,011**	**$ 4,822**	**$ 4,779**	**$ 23,485**
ADMINISTRATION & GENERAL								
ISMP Electronic Document Management System*	20	945	665				0	1,630
Administration & General Subtotal	**$ 20**	**$ 945**	**$ 665**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,630**
TOTAL	**$ 1,704**	**$ 9,688**	**$ 14,291**	**$ 61,101**	**$ 114,012**	**$ 104,943**	**$ 313,937**	**$ 619,676**

Note: The asterisked projects would benefit the South County/Coyote Valley and therefore would be funded in part or in whole by the South County/Coyote Valley.

IV-4 Finances

Financing and Bond Ratings

In September of 2007, the Water Utility Enterprise issued $123 million of long-term debt to fund capital appropriations over the next three years. Capital improvement needs total $668.9 million (in inflated dollars) for the ten fiscal years 2008-09 through 2017-18. As shown in Figure IV-4.1, the District will see debt service rise from $13 million in FY 2008-09 to just over $32 million in FY 2017-18 as a result of periodic debt issuances to fund capital. Total outstanding debt (excluding general obligation bonds) is shown in Figure IV-4.2 and is projected to increase from $288 million in FY 2008-09 to $438 million in FY 2017-18. This outstanding debt could be significantly higher if all postponed capital projects were funded.

FIGURE IV-4.1 Projected Debt Service

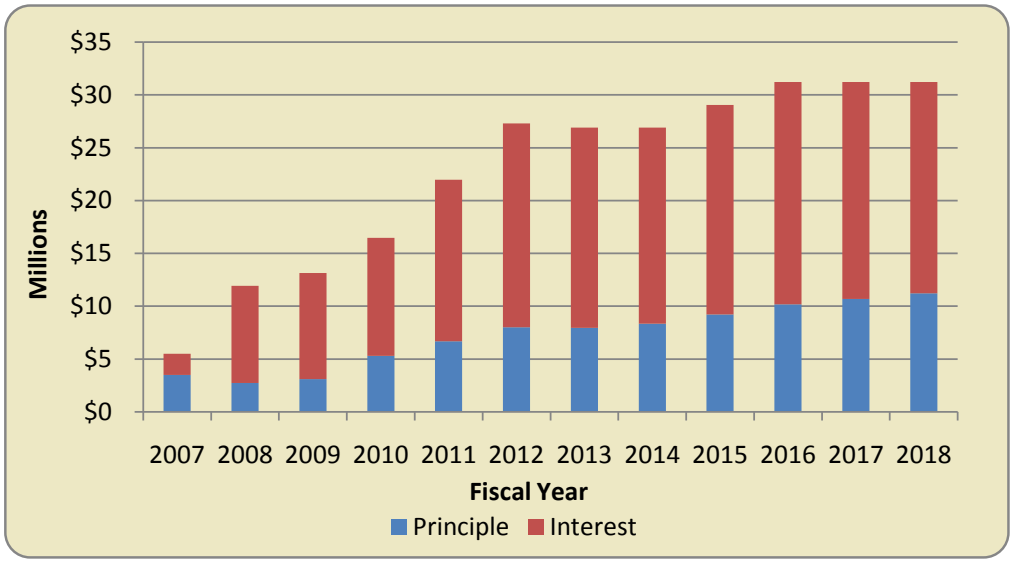
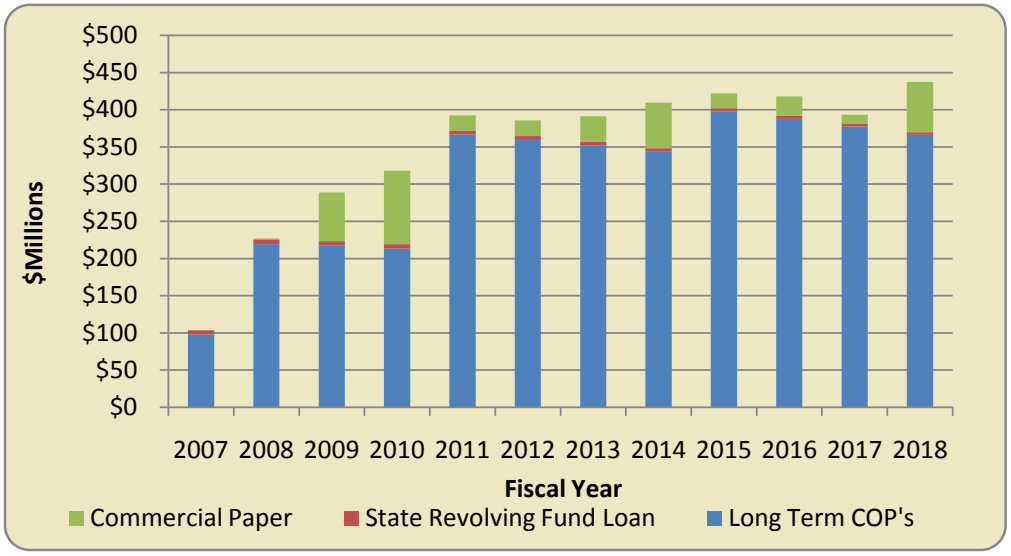


FIGURE IV-4.2 Projected Outstanding Debt



The District was upgraded to a rating of Aa2 from Moody's for the September 2007 long-term debt issuance while Standard & Poor's maintained a rating of AA. These ratings reflect the District's strong financial position and the highly rated creditworthiness of District issued securities. The ratings are among the highest for a water-related governmental entity in the state of California, which helps keep interest costs borne by the District at a minimum.

Water Utility Fund Projected Proforma

Table IV-4.1 shows the projected revenues, expenditures, and reserves over the next ten years for the Water Utility Fund. By financing with a combination of debt, current year revenue, and reserves, the District is able to meet its capital investment plan. Some capital projects are funded via transfer from the Water Utility Fund, consequently the capital outlays shown in the proforma may differ slightly from the total annual capital project costs previously shown in Table IV-3-1. The financial model under the recommended projection assumes that average discretionary reserve levels are maintained at levels equal to between 20% and 26% of operating outlays through FY 2013-14, after which reserves levels grow higher. Targeting discretionary reserve levels in that range is in line with budgeted levels for several comparator agencies including Metropolitan Water District (26%), East Bay MUD (30%), and San Diego County Water Authority (24%). Discretionary reserves include Contingency Appropriation, Supplemental Water Supply, Rate Stabilization, Water Banking, Capital Replacement, Future Years' Capital, and Bureau Repayment Appropriation.

The financial model under the recommended projection reflects a subordinate Lien Debt Service Coverage Ratio ranging between 2.14 and 2.41 through FY 2011-12, and then growing thereafter. Targeting a ratio of 2.0 or better helps to ensure financial stability and continued high credit ratings.

TABLE IV-4.1
Ten-Year Water Utility Enterprise Plan ($ in Thousands)

	Actual	Adjusted Budget	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected
	2006–07	2007–08	2008–09	2009–2010	2010–11	2011–12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Operating Revenues												
Groundwater Charges	$50,251	$65,563	$71,653	$78,781	$86,591	$95,223	$104,526	$113,638	$123,987	$131,127	$136,536	$141,777
Surface & Recycled Water Charges	$818	$1,373	$1,482	$1,626	$1,874	$2,045	$2,271	$2,465	$2,730	$2,888	$3,048	$3,148
Treated Water Charges	$74,165	$66,689	$71,908	$77,707	$84,086	$91,044	$98,583	$106,122	$114,240	$120,039	$124,679	$129,318
Inter-governmental Services	$2,784	$2,527	$3,266	$1,965	$1,400	$1,089	$1,096	$1,255	$1,151	$1,172	$1,249	$1,239
Total Operating Revenue	**$128,018**	**$136,152**	**$148,309**	**$160,079**	**$173,951**	**$189,401**	**$206,476**	**$223,480**	**$242,108**	**$255,226**	**$265,512**	**$275,482**
Non-Operating Revenues												
Property Taxes	$21,492	$21,633	$20,790	$22,775	$25,950	$29,006	$30,779	$32,977	$34,184	$37,399	$40,624	$43,859
Interest	$5,049	$4,550	$2,476	$1,650	$1,669	$1,720	$1,732	$1,985	$2,361	$3,085	$4,275	$6,192
Capital Contributions	$105	$1,505	$1,850	$14,732	$200	$16,597	$97	$77	$0	$0	$0	$0
Other	$3,503	$4,826	$327	$328	$330	$331	$333	$334	$336	$337	$339	$340
Total Non-Operating Revenues	$30,148	$32,514	$25,443	$39,485	$28,148	$47,654	$32,941	$35,373	$36,880	$40,821	$45,238	$50,392
Total Revenue	**$158,166**	**$168,666**	**$173,752**	**$199,565**	**$202,099**	**$237,055**	**$239,417**	**$258,853**	**$278,988**	**$296,047**	**$310,750**	**$325,874**
Operating Outlays												
Operations	$116,385	$131,786	$133,725	$139,516	$146,706	$152,297	$159,773	$167,131	$171,846	$179,122	$187,986	$194,728
Operating Projects	$3,414	$2,791	$4,879	$8,346	$5,956	$1,231	$2,446	$6,334	$7,057	$6,861	$6,922	$6,156
Debt Service	$7,474	$11,926	$13,144	$16,459	$21,959	$27,309	$26,904	$26,892	$29,054	$31,219	$31,213	$31,215
Total Operating Outlays	$127,273	$146,502	$151,748	$164,321	$174,620	$180,837	$189,123	$200,357	$207,958	$217,202	$226,121	$232,099
Operating Transfers Out	(2,429)	(8,078)	(2,795)	(3,206)	(4,352)	(5,154)	(5,818)	(5,818)	(5,818)	(5,818)	(5,818)	(5,818)
Debt Proceeds	0	123,261	63,551	32,375	65,255	472	12,864	26,079	14,484	5,833	(14,936)	55,383
State Revolving Fund Loan Proceeds	5,576	774	0	0	0	0	0	0	0	0	0	0
Capital Outlay	(58,122)	(73,862)	(153,083)	(67,412)	(84,160)	(52,310)	(55,768)	(63,481)	(69,924)	(40,353)	(23,022)	(56,315)
Total Other Financing Sources/ (Uses)	(54,975)	42,095	(92,327)	(38,243)	(23,257)	(56,992)	(48,722)	(43,220)	(61,258)	(40,338)	(43,776)	(6,750)
Balance Avaliable	**(24,082)**	**64,259**	**(70,323)**	**(2,999)**	**4,222**	**(773)**	**1,572**	**15,276**	**9,772**	**38,507**	**40,853**	**87,026**
Reserves:												
Operating Reserves:												
Contingency Appropriation	$1,325	$1,465	$1,517	$1,643	$1,746	$1,808	$1,891	$2,004	$2,080	$2,172	$2,261	$2,321
Working Capital Appropriation	$11,044	$12,209	$12,646	$13,693	$14,552	$15,070	$15,760	$16,696	$17,330	$18,100	$18,843	$19,342
Supplemental Water Supply Appropo.	$589	$589	$589	$589	$589	$589	$589	$589	$589	$589	$589	$589
Rate Stablization Reserve Fund	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
San Felipe Appropriation	$3,481	$3,481	$3,481	$3,481	$3,481	$3,481	$3,481	$3,481	$3,481	$3,481	$3,481	$3,481
Environmental Water Account	$921	$921	$921	$921	$921	$921	$921	$921	$921	$921	$921	$921
Operating	$20,361	$21,665	$22,154	$23,328	$24,289	$24,869	$25,643	$26,691	$27,401	$28,263	$29,096	$29,654
Capital Reserves:												
Designated for Fixed Assets	$3,693	$3,693	$3,693	$3,693	$3,693	$3,693	$3,693	$3,693	$3,693	$3,693	$3,693	$3,693
Designated for Restricted Purposes	$5	$5	$5	$5	$5	$5	$5	$5	$5	$5	$5	$5
Designated for Future Years' Capital	$1,398	$75,694	$14,200	$10,027	$13,288	$11,935	$12,733	$26,960	$36,023	$73,667	$113,688	$200,156
Currently Authorized Projects	$21,061	$9,720	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capital	$26,157	$89,112	$17,898	$13,725	$16,986	$15,632	$16,430	$30,658	$39,720	$77,365	$117,386	$203,854
Reserves for Contingent Liabilities:												
State Revolving Fund		$0	$401	$401	$401	$401	$401	$401	$401	$401	$401	$401
Bureau Repayment Appropriation	$16,066	$16,066	$16,066	$16,066	$16,066	$16,066	$16,066	$16,066	$16,066	$16,066	$16,066	$16,066
Contingent Liabilities	$16,066	$16,066	$16,467	$16,467	$16,467	$16,467	$16,467	$16,467	$16,467	$16,467	$16,467	$16,467
Total	$62,583	$126,842	$56,519	$53,520	$57,742	$56,969	$58,540	$73,816	$83,588	$122,095	$162,949	$249,975
Debt Service Coverage												
Sub. Lien Debt Service Coverage	5.51	2.37	2.41	2.14	2.14	2.33	2.68	2.99	3.27	3.36	3.55	3.84

North County (Zone W-2) Finances

North County (Zone W-2) is generally defined as the portion of the county north of Metcalf Road. North County (Water Charge Zone W 2) accounts for approximately 80% of District water consumption, but because of higher water charges due to higher North County costs, over 95% of the Water Utility Enterprise's revenue. As shown at the beginning of the financial section in Table IV-1.1, staff recommends a $520/AF groundwater production charge for non-agricultural (M&I) water and a $620/AF charge for contract treated water for FY 2008–09. This is an increase of 9.5% for groundwater production and 7.8% for treated water compared to FY 2007–08. The recommended charge increase translates to an increase of $1.55 per month for the typical residence using either 1500 cubic feet of groundwater or treated water per month. Customers in most instances may experience charge increases enacted by their retail water provider in addition to those from the District.

Staff proposes increasing the North County agricultural charge by 6.5% from $15.50/AF to $16.50/AF in FY 2008-09 in concert with the South County agricultural charge. The resulting agricultural charge is 3.2% of the M&I charge in North County.

Staff recommends maintaining the surcharge on treated water delivered under the contracts with retail agencies at $100/AF. As outlined in treated water contracts, the District has the discretion to make available treated water in excess of the retailers' basic contract amounts, so-called non-contract treated water, "… at such times and such prices as determined by the District." The availability of non-contract deliveries will be suspended when necessary to accommodate construction activities scheduled for Rinconada Water Treatment Plant (RWTP). In FY 2007-08, the Board supported staff's recommendation to eliminate the discounted surcharge on non-contract water from RWTP and price the non-contract treated water surcharge at $100/AF for all three treatment plants. The rationale was that the unfavorable westside basin groundwater conditions that existed in 1998, which caused the District to offer the discounted non-contract surcharge incentive from RWTP, no longer exist. Staff recommends maintaining the non-contract surcharge at $100/AF for FY 2008-09. The amount of the surcharge on both contract and non-contract water affects the retailers' decisions on whether to pump groundwater or purchase treated water. Non-contract water will be offered to all treated water contractors to the extent that it is available.

Table IV-4.2 shows that total North County costs in FY 2008–09 are estimated to increase by approximately $79.2 million compared to the budgeted expenditures in FY 2007–08. This increase is driven by an increase in the capital appropriations. The District issued $123 million of long term debt in FY 2007-08 in anticipation of a large capital appropriation for FY 2009. The timing of the debt issuance and projected capital expenditures drive the surplus in North County finances for FY 2007-08 followed by the shortfall in FY 2008-09.

TABLE IV-4.2 Overview of North County finances ($ in Millions)

	Millions $		
Revenue and Cost Categories	**Actual 2006–07**	**Adjusted Budget 2007–08**	**Projected Budget 2008-09**
Allocated Revenue			
Operating & Non-operating Revenue	$ 146.62	$ 157.21	$ 163.21
Long Term Debt/Other Debt Financing	5.58	124.04	63.55
Capital Cost Recovery from South Co./Coyote Valley	1.42	1.70	1.86
Carryforward Reserves	4.40		
Total Allocated Revenue	**$ 158.01**	**$ 282.95**	**$ 228.62**
Allocated Costs			
Operation	80.06	100.73	101.52
Imported Water	36.52	39.16	39.33
Capital Improvements	58.12	73.86	153.08
Less Open Space Credit to South/Coyote AG	0.90	1.26	1.36
Total Allocated Costs	**$ 175.60**	**$ 215.01**	**$ 295.30**
North County Surplus (Shortfall)	**$ (17.59)**	**$ 67.94**	**$ (66.67)**

Table IV-4.3 shows the relationship between expenditures and the sources of revenue in Zone W-2. The groundwater production charges for FY 2008–09 are necessary to conduct "District activities in the protection and augmentation of the water supplies for users within a zone or zones of the District which are necessary for the public health, welfare, and safety of the people of this state" (District Act, Section 26.3).

TABLE IV-4.3 Fiscal Year 2008–09 North County Water Utility Program Requirements and Financing Sources

Program Requirements	Thousands	
Cost Category	**Prelim FY09**	**Description of Activities**
Drinking Water Quality	5,905	Water District laboratory operations, water quality planning, testing, research, and reporting
Treated Water Operations	18,128	Operate 3 water treatment plants
Treated Water Transmission & Distribution	2,626	Maintain & operate treated water transmission and distribution system
Asset Management	8,022	Capital facility maintenance and lifecycle & maintenance planning
Water Supply Acquisition & Storage	42,237	Imported water purchases, dams and reservoir operations & maintenance
Raw Water Transmission & Distribution	9,008	Operate & maintain raw water distribution system, including mechanical, electrical and SCADA
Short-Term Water Supply Planning	2,280	Data collection & analysis, water supply conditions analysis, operations planning
Groundwater Management	5,292	Operate & maintain recharge ponds, canals, pipelines & diversions including vegetation management, groundwater level & quality monitoring
Water Supply System Sustainability	1,101	Water rights protection, disaster planning, asset protection
Long-term Water Supply Planning	5,708	Water banking program expenses, Integrated Water Resources Plan, Urban Water Management Plan, water shortage contingency plan, water system computer modeling, imported water supply management, policies and procedures
Water Supply Development	2,286	groundwater modeling, subsidence data collection & analysis, groundwater recharge reuse, groundwater recharge evaluation
Resource Protection	4,516	Environmental planning & compliance, well permitting and destruction, biodiversity monitoring, Calfed Bay Delta issues
Water Recycling	3,777	Administer agreements, planning, technical studies, recycled water rebates
Water Conservation	7,470	Technical assistance, financial incentives and education, program development
Water Utility Business Services	6,812	General & division management; performance measures; non-project related unit management; communications; financial support & water charge setting; public outreach; health and safety training; billing, data maintenance, auditing; meter reading, testing, repair, installation, backflow prevention
Mitigations to Protect Natural Resources	789	Environmental compliance support, mitigation commitments, urban runoff polution prevention
Strategic Support Services	1,747	Emergency services, warehouse and equipment services, real estate services, ethics & diversity
Debt Service	13,144	Principal and Interest payments on outstanding debt
Capital Improvements	153,083	Capital Improvement Program
Open Space Credit	1,364	Help preserve the open space benefits provided by agricultural lands
Total Program Requirements	**295,296**	
Financing Sources		
Capital Cost recovery	1,857	
Debt Proceeds	63,551	
Interest & Other	7,497	
Property Tax	18,978	
Treated Water Sales	71,908	
Surface Water Charges	1,065	
Groundwater Production Charges	63,760	
Total Financing Sources	228,615	

South County/Coyote Valley (Zone W-5) Finances

South County/Coyote Valley (Zone W-5) is generally defined as the portion of Santa Clara County south of Metcalf Road, including Coyote Valley, Morgan Hill, San Martin and Gilroy. Charges in the South County/Coyote Valley (Water Charge Zone W-5) are based on the costs of specific facilities, imported water costs, and operations costs related to managing the groundwater basin, ensuring water quality, and measuring water supplies and usage. Under current policies for managing the finances of South County/Coyote Valley, water charges are set to maintain an approximate balance between revenues and costs. The cumulative balance is tracked, and historically projected water charges have been set to keep the cumulative balance near zero, while maintaining relative stability in South County/Coyote Valley water charges. Successive years of surplus or shortfall can occur, but charges are adjusted only when the trend in the cumulative surplus or shortfall shows a significant imbalance.

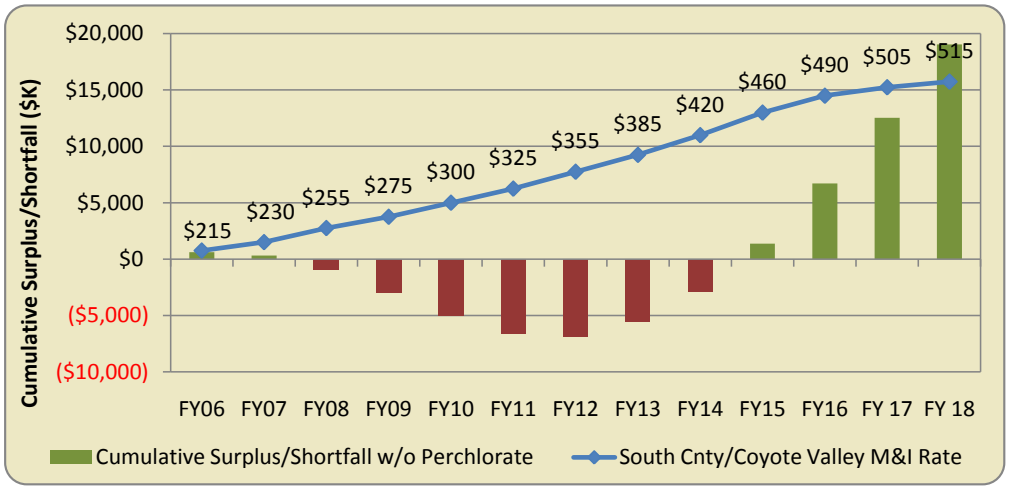
For South County/Coyote Valley, staff recommends a groundwater production charge of $275/AF for M&I water, a 7.8% increase over prior year, and a $16.50/AF charge for agricultural water. The increase translates to an additional $0.69 per month for the typical residence using 1500 cubic feet of groundwater per month. Customers in most instances will experience water charge increases enacted by their retail water provider in addition to those from the District. With the recommended charges for FY 2008–09, costs are estimated to exceed revenues by approximately $2.0 million in FY 2008–09 (see Table IV-4.4).

TABLE IV-4.4 Overview of South County/Coyote Valley Finances ($ in Millions)

	Millions $		
Revenue and Cost Categories	**Actual 2006–07**	**Adjusted Budget 2007–08**	**Projected Budget 2008-09**
Allocated Revenue			
Operating & Non-operating Revenue	$ 10.34	$ 10.71	$ 10.54
Received Open Space Credit from North County	0.9	1.26	1.36
Total Allocated Revenue	**$ 11.24**	**$ 11.98**	**$ 11.90**
Allocated Costs			
Operation	7.74	9.19	9.67
Imported Water	2.39	2.35	2.29
Amortized Capital Improvements	1.42	1.7	1.86
Interest (earned)/due Utility Reserves	-0.01	0.01	0.06
Total Allocated Cost	**$ 11.53**	**$ 13.25**	**$ 13.88**
Surplus (Shortfall)	**$ (0.28)**	**$ (1.27)**	**($1.98)**
Cumulative Balance	$ 0.32	$ (0.96)	($2.94)

On a cumulative basis, costs are estimated to exceed revenues by almost $3.0 million at the end of FY 2008–09 not including the costs of the perchlorate response program. Figure IV-4.1 shows the projected cumulative revenue shortfall under the recommended water charge projection for South County/ Coyote Valley. Under this projection, cumulative costs will exceed cumulative revenues and will not be balanced until FY 2014–15. The projection assumes an average increase of 7.3% in the M&I groundwater charge between FY 2007–08 and FY 2017–18. The average increase under the higher projection is 9.6%, over the same time frame.

FIGURE IV-4.3 South County/Coyote Valley Cumulative Revenue Surplus/Shortfall Projection ($ in Thousands)



The revenue shortfall, which began in FY 2002–03 was initially driven by investments in recycled water and conservation. In subsequent years, cost increases were driven by program enhancements including increased water supply planning and collaboration efforts, installation and operation of more wells to monitor groundwater levels and quality, development of computer models for the groundwater basins, initiation of an asset management program, more maintenance work on San Felipe Division facilities and raw water pipelines, and improved security. More recently, increases in imported water contract rates and loss of property tax revenue have exacerbated the revenue shortfall.

In 2003, the District initiated an aggressive strategy to respond to the perchlorate contamination found in the Llagas Subbasin. The District has funded perchlorate-related costs from Water Utility reserves and federal grants as opposed to groundwater charges. Staff has tracked the costs of the perchlorate response program separately and has requested full

reimbursement from the responsible party. If the District is not successful in obtaining full reimbursement, the cumulative revenue shortfall in South County/Coyote Valley would worsen. Staff continues to work on plans with customers and partners in the region to take advantage of federal and state grant opportunities to fund projects that would help restore the groundwater basin.

Current Board policy adds an "open space" credit to agricultural revenues. The purpose of the credit is to preserve the open space benefits provided by agricultural lands by keeping agricultural groundwater production charges low. The credit to agricultural water users in a water charge zone amounts to the difference in revenue from agricultural water use charged at 10% of the zone's M&I charge and that which would be generated if the agricultural charge were 25% of the zone's M&I charge. The credit is funded by 1% ad valorem property tax revenues from the corresponding zone of benefit. A Board policy setting the agricultural water charge at one tenth of the zone's M&I charge was instituted in July 1998 and formally incorporated into the pricing policy in Resolution No. 99-21 (see Appendix B). In FY 2006-07 and FY 2007-08, the Board increased the open space credit in order to minimize the increase in the agricultural groundwater production charge. The Board reduced the agricultural groundwater charge from $21.50/AF to $15.50/AF in both zones for FY 2007-08 and increased the open space credit again to offset the lost revenue. The recommended agricultural charge for FY 2008-09 is $16.50, which is 6.0% of the M&I charge in South County and 3.1% in North County.

As shown earlier in Table IV-4.4, the Open Space Credit received by the South County/Coyote Valley was $0.90 million in FY 2006–07, budgeted to be $1.26 million in FY 2007–08, and estimated to be $1.36 million in FY 2008-09. As the M&I charges for both zones are projected to grow over the next ten years, the amount of the Open Space Credit available to support agricultural water revenues will continue to increase.

Table IV-4.5 shows the relationship between expenditures and budgeted sources of revenue in South County/Coyote Valley (Zone W-5) for FY 2008-09. The groundwater production charges recommended for FY 2008–09 in Zone W-5 are necessary to conduct "District activities in the protection and augmentation of the water supplies for users within a zone or zones of the District which are necessary for the public health, welfare, and safety of the people of this state" (District Act, Section 26.3).

TABLE IV-4.5 Fiscal Year 2008–09 South County/Coyote Valley Water Utility Program Requirements and Financing Sources

Program Requirements	Thousands $	
Cost Category	**Prelim FY09**	
Drinking Water Quality	$ 44	Water District laboratory operations, water quality planning, testing, research, and reporting
Asset Management	61	Capital facility lifecycle & maintenance planning
Water Supply Acquisition & Storage	2,939	Imported water purchases, dams and reservoir operations & maintenance
Raw Water Transmission & Distribution	1,312	Operate & maintain raw water distribution system, including mechanical, electrical and SCADA
Short-Term Water Supply Planning	828	Data collection & analysis, water supply conditions analysis, operations planning
Groundwater Management	2,269	Operate & maintain recharge ponds, canals, pipelines & diversions including vegetation management, groundwater level & quality monitoring
Water Supply System Sustainability	201	Water rights protection, disaster planning, asset protection
Long-term Water Supply Planning	764	Water banking program expenses, Integrated Water Resources Plan, Urban Water Management Plan, water shortage contingency plan, water system computer modeling, imported water supply management, policies and procedures
Water Supply Development	701	Groundwater modeling, subsidence data collection & analysis, groundwater recharge reuse, groundwater recharge evaluation
Resource Protection	614	Environmental planning & compliance, Llagas fire management, well permitting and destruction, biodiversity monitoring, Calfed Bay Delta issues
Water Recycling	384	Administer agreements, planning, technical studies, recycled water rebates, operate and maintain recycled water facilities in partnership with South County Regional Wastewater Authority
Water Conservation	485	Technical assistance, financial incentives and education, program development
Water Utility Business Services	1,267	General & division management; performance measures; non-project related unit management; communications; financial support & rate setting; public outreach; health and safety training; billing, data maintenance, auditing; meter reading, testing, repair, installation, backflow prevention
Mitigations to Protect Natural Resources	16	Environmental compliance support, mitigation commitments, urban runoff polution prevention
Strategic Support Services	81	Emergency services, warehouse and equipment services, real estate services, ethics & diversity
Capital Cost Recovery	1,857	Annual payment for completed capital facilities and improvements
Interest (Earned)/Due Utility Reserves	59	Based on cumulative revenue shortfall at 3% interest rate
Total Program Requirements	**$ 13,883**	
Financing Sources		
Open Space Credit	$ 1,364	
Property Tax & Other Revenue	2,228	
Surface Water Charges	94	
Groundwater Production Charges	8,216	
Total Financing Sources	11,902	
FY 09 Revenue Shortfall	$ (1,981)	

Appendix A

Water Utility Charge Components and Adopted Charges

TABLE A-1 Recommended Water Charge Components for Fiscal Year 2008–09

Component	Charge ($/AF)
Basic User, Zone W-2 (North County)	
Agricultural	16.50
M&I	520.00
Basic User, Zone W-5 (South County/Coyote Valley)	
Agricultural	16.50
M&I	275.00
Treated Water Surcharge	
Contract	100.00
Non-contract1	100.00
Water Master	11.75
Capital Cost2	0.00
Half Road Lateral System	
Available Agricultural Discounts3	
Mobile Lab	0.00
INAAP	0.00

1 Historically, the non-contract surcharge was offered for non-contract water taken from the Rinconada Water Treatment Plant only. The non-contract surcharge discount was eliminated in FY 2007–08 since the incentive to offer the discount no longer exists and because of dry surface water conditions.
2 Recovery of capital costs related to the Half Road Lateral System have been adequately recovered. Therefore, this charge is no longer needed.
3 The Board discontinued agricultural discounts beginning in FY 2007–08.

Appendix A

TABLE A-2 Recommended Water Charges for Fiscal Year 2008–09

Type of Charge	AG Water ($/AF)	M&I Water ($/AF)
Groundwater		
Zone W-2	$16.50	$520.00
Zone W2 with Mobile Lab & INAAP Discounts1	$16.50	N/A
Zone W-5	$16.50	$275.00
Zone W5 with Mobile Lab & INAAP Discounts1	$16.50	N/A
Surface Water2		
Half Road Deliveries3	$28.25	$286.75
Other Zone W-5 Deliveries4	$28.25	$286.75
Other Zone W-2 Deliveries5	$28.25	$531.75
Minimum Charge Zone W-56	$206.25	$206.25
Minimum Charge Zone W-27	$390.00	$390.00
Stored Water		
Zone W-2	$16.50	$520.00
Zone W-5	$16.50	$275.00
Treated Water		
Contract8	N/A	$620.00
Non-contract9	N/A	$620.00
Recycled Water		
Gilroy	$41.50	$275.00

1 The Board discontinued agricultural discounts beginning in FY 2007–08, which were funded by 1% ad valorem property taxes. To avoid "rate shock" to growers who were participating in the discount programs, the Board lowered the agricultural charge.
2 Surface water charge is the sum of the basic user charge plus the water master charge. It also includes the capital cost and power, wherever applicable.
3 Half Road = Basic User (AG or M&I @ $16.50 or $275.00) + Water Master ($11.75).
4 Other Zone W 5 Deliveries = Basic User (AG or M&I @ $16.50 or $275.00) + Water Master ($11.75).
5 Other Zone W 2 Deliveries = Basic User (AG or M&I @ $16.50 or $520.00) + Water Master ($11.75).
6 Minimum Charge W 5 = 0.75 X Basic User W 5 (M&I @ $275.00).
7 Minimum Charge W 2 = 0.75 X Basic User W 2 (M&I @ $520.00).
8 Treated Water Charge is the sum of Basic User ($520.00) and Treated Water Surcharge ($100.000/AF).
9 The charge for non-contract deliveries is the sum of the basic user charge ($520.00) and the treated water surcharge for non-contract water ($100.00/AF).

Appendix B

Description of Water Utility Revenue Sources, Cost Centers, and Reserves

Pricing Policy

The District's Board adopted Resolution No. 99 21 updating the Water Utility taxing and pricing policy in March 1999. This pricing policy incorporates four concepts: (1) water pooling, (2) water facilities cost pooling, (3) water resources management, and (4) revenue pooling. The complete policy follows after page B 4. The principal update to the policy in March 1999 was the Board's setting the agricultural water charge at 10% of the M&I charge in both Zones W 2 and W 5. Resolution No. 99 21 is included in this appendix.

Water Charges

- Water charges include a groundwater production charge that is associated with the benefit of District activities to protect and augment groundwater supplies. The groundwater production charge is applied to water extracted from the groundwater basin in Zones W 2 and W 5, as shown in Appendix C. The basic user charge is applied to other types of water delivered by the District. There are two charges: one for agricultural water and one for M&I water.

- A treated water surcharge, which is associated with the benefit of receiving treated water, is levied in addition to the basic user charge on water delivered from the District's water treatment plants.

Property Taxes

Ad valorem taxes provide revenue to support several benefits which are general in nature serving all or large areas of the county. Some of these benefits are the availability of imported water to the county, recreation associated with the District's reservoirs, and replenishment of the county's groundwater subbasins.

The District receives a portion of the 1% countywide tax revenues as allocated by the County Assessor. Tax Zones W 3 and W 4, as well as a countywide ad valorem tax, are part of the 1% allocation. The District's share of the (post-Proposition 13) 1% ad valorem taxes are general taxes which are not earmarked but are available for any lawful District purpose.

Appendix B

The District also levies additional ad valorem taxes under Article XIII A of the State Constitution to meet: (a) prior approved general obligation bond debt service in Zone W 1 (zones are shown on the map in Appendix C) and (b) part of the contractual obligations for California State Water Project water with a countywide tax.

Debt Financing

To fund the construction of new facilities, the District has historically relied on both pay as you go financing and long-term debt financing from revenue bonds as authorized by the voters in 1977. The last remaining 1977 authorized revenue bonds were sold in April 1984. In January 1984, state legislation allowed the District to seek authorization to issue revenue bonds as needed following the Board's approval. County voters approved this authorization in November 1984. The District sold an additional $30 million of revenue bonds in November 1985 to provide needed funding for ongoing projects. In August 1986, the District refunded all outstanding water revenue bonds. Again, in June 1994, the District took advantage of favorable market conditions to refund the remaining 1986 water revenue bonds. The 1994 refunding totaled $65.9 million at an effective interest rate of 5.2%. In December 2000, the District issued tax-exempt and taxable bonds in the amount totaling $60.3 million. In January 2003, the District decided to take advantage of the lower interest rates offered through short-term debt and entered into a $100 million commercial paper program. In 2006, the District's Water Utility Enterprise refunded approximately $55 million of 2000 outstanding revenue bonds and $40 million of outstanding commercial paper. The District plans to issue certificates of participation in FY 2006–07 in the amount of approximately $90 million.

Water Utility Reserves

There are multiple reserves designated in the Water Utility Enterprise Fund. Policies and procedures for fund balance reserves, as approved by the District Board of Directors in 2001 can be found on page B-11. A staff-proposed policy can also be found here.

Water Utility Zones

The major sources of water revenue are from charges levied on all groundwater extracted within Zone W 2 and Zone W 5 of the District and from the sale of approximately 135,000 AF of treated water. Other water charges

Appendix B

are made for surface water diversions and sales of recycled water in the Gilroy area. A brief description of each water zone (see Water Utility Zones map in Appendix C) within the Water Utility Enterprise follows:

Zone W 1: Encompasses the groundwater basin in the northern county and small peripheral areas outside the groundwater basin, with the retail service areas of privately owned public utilities and municipal water departments using water pumped from the groundwater basin. This area provides the security for general obligation bonds. Zone W 1 comprises an area of approximately 290 square miles and includes all or portions of 13 of the county's 15 cities, plus some unincorporated territory.

Zone W 2: Encompasses the Santa Clara Valley groundwater basin north of Metcalf Road. It includes those groundwater producing facilities that benefit from recharge of the basin with local and imported water. A charge is levied for all groundwater extracted from this zone.

Zone W 3: Encompasses the Coyote and Llagas groundwater basins in the area from Metcalf Road in the north to just south of the City of Morgan Hill. Part of the county property tax within the 1% limit is allocated to this zone.

Zone W 4: Contains all of Zone W 2 and lands outside Zone W 2 that use or otherwise benefit from locally conserved water and from the importation and distribution of water from the South Bay Aqueduct. This area also receives an allocation of county taxes. These tax revenues are used to pay for the cost of water, recovery of accumulated overdrafts, control of land surface subsidence, and to sustain the emergency supply of water.

Zone W 5: Is comprised of the entire groundwater basin from Metcalf Road south to the Pajaro River. Charges are levied for all groundwater extracted from this zone.

Zone W 6: Represents the former Gavilan Water Conservation District and is within Zone W 5.

Water Utility Cost Centers

The Source of Supply Cost Center contains all the anticipated expenditures that relate to obtaining, producing, and protecting a water supply and includes all District conservation, recycling, and importation costs.

Appendix B

The Raw Water Transmission and Distribution Cost Center contains all expenditures relating to the distribution of raw water. The distribution system consists of pipelines, canals, and percolation ponds and includes the use of creek systems.

The Water Treatment Cost Center contains all expenditures associated with the treatment of water at the Rinconada Water Treatment Plant, Penitencia Water Treatment Plant, and Santa Teresa Water Treatment Plant.

The Treated Water Transmission and Distribution Cost Center contains all expenditures relating to the distribution of treated water to water utilities and includes costs associated with the treated water reservoirs, pumping plants, pipelines, and turnouts.

The Administration and General Cost Center contains all expenditures of an administrative nature, which are not assigned to one of the other four cost centers. Work performed in this cost center covers items such as the collection of groundwater production charges, financial and cash flow studies, annual reports, and general water quality management and resource planning.

Appendix C

Resolution 99-21: Adopting "Water Utility Taxing and Pricing Policy" and Rescinding Resolution No. 96-82

RESOLUTION NO. 99- 21

ADOPTING "WATER UTILITY TAXING AND PRICING POLICY" AND RESCINDING RESOLUTION NO. 96-82

WHEREAS, the Santa Clara Valley Water District (District) adopted a District mission, goals and objectives on February 19, 1985, in order to conduct a sound water management program that serves the community; and

WHEREAS, the District Act authorizes the District to enter into water sales contracts and to levy and collect taxes and assessments on property within the District and in the respective zones of the District and sets forth requirements for groundwater charges and rates between agricultural and nonagricultural water; and

WHEREAS, several Board resolutions, as identified in Exhibit "A," are related to the management of water resources and the implementation of this water taxing and pricing policy; and

WHEREAS, several changes which affect revenue sources and benefit distribution have occurred since adoption of Resolution No. 96-82. These changes include: (1) passage of Resolution Nos. 98-44 and 98-45 setting agricultural charges for groundwater and surface water at 10 percent of the nonagricultural charges; (2) revisions to the policy governing sale of noncontract water in 1998; (3) pending completion of an agreement to act as the wholesaler to deliver recycled water in South County.

BE IT RESOLVED, by the Board of Directors of the District as follows:

1. **The policy of the District in the areas of taxation and water pricing for water utility revenues shall be and is hereby adopted**:

   Policy Statement

   The intent of this water utility taxing and pricing policy is to provide revenue for the management of water resources and operation of the water utility enterprise. This policy establishes a framework for establishing a system of water charges as permitted by the District Act to meet revenue requirements and to allocate costs amongst the beneficiaries. The general approach is to charge the recipients of the various benefits for the benefits received from the District's comprehensive water utility program.

   The consumptive and nonconsumptive benefits provided by District water supply facilities and operations are listed and described below:

   - Provision of a water supply and effective management of water resources available to the community from a variety of sources of supply, transmission, and water treatment facilities operated by the District.
   - Protection of water quality through the purification and treatment of water and the protection of water supplies.
   - Stewardship of watersheds and riparian corridor.
   - Administration of related programs and projects such as recycled water and water conservation administered solely by the District or in partnership with another organization.

Appendix C

- Ancillary flood protection.
- Recreation, such as fishing, boating, picnicking, hiking, and other related recreation activities.
- Support for the economic well being of the community.
- Protection of the community infrastructure from subsidence.

2. Policy Implementation

The following water taxing and pricing concepts and framework shall be implemented in order to provide for revenue in order to continue providing direct and ancillary benefits to the customers of the District and the community of Santa Clara County.

Water Taxing and Pricing Concepts

- ***Water Pooling***: Water is considered to be a single commodity irrespective of the water's source or cost. It is a single commodity whether it is from water provided locally, imported, or recycled, and all users benefit from the availability of multiple sources of water.
- ***Water Facilities Cost Pooling***: All water supply facilities contribute to the common benefit of effective water resources management. In general, the water charges and property taxes are based on the common benefits of the capital and operations outlays, rather than reference to named facilities, with the exception of the liability for bonded indebtedness which is applied to each zone of benefit.
- ***Water Resources Management***: Water supplies are managed, through taxing and pricing, to obtain the effective utilization of the water resources of the District to the advantage of the present and future populations of the County. This concept provides for development of taxing and pricing structures that will achieve the effective use of available resources and conserve supplies for potential drought conditions.
- ***Revenue Pooling***: For the most part, water utility revenues are collected in a common fund and not designated for a specific cost. Such revenues are available for the general capital and operating outlays of the water utility enterprise. Some revenues such as certain property taxes are specifically designated for debt service and the fixed costs of the State Water Project, and are not available to the common fund. Water charges are established to provide the revenues that are required in the common fund for general capital and operating outlays and that are over and above revenues from ad valorem taxes, interest, and miscellaneous sources. This provides flexibility in managing continuing operations and funding capital outlays.

Water Taxing and Pricing Framework

The following procedures are intended as a general framework to guide staff in the development of a water rate structure implementing this policy:

- ***Zones of Benefit***: Zones of benefit are to be identified and established in accordance with the District Act. Groundwater charges and property taxes are levied for the benefits received

Appendix C

water user charge is determined for current groundwater and raw surface water users to be applied to the quantities of water used or consumed.

- ***Basic Water Charge Zones***: The objective of establishing various water charge zones is to recover costs for the benefits resulting from conservation, import, and recharge of water which occur only within that zone. Water charges are levied for water producing operations, such as groundwater pumping and raw surface water diversion. In addition, users may be subject to specific charges that meet special needs of a group of users, such as water master charges for surface water deliveries, a capital charge for equipment or facilities, and power costs for pumping.

- ***Treated Water Surcharge***: A treated water surcharge shall be added to the basic water charge for the price of treated surface water delivered by the District. The charge is to be established at an amount that would promote the effective use of available water resources. The charge may differ between treatment plants to better manage regional variations in groundwater conditions.

- ***Costs for Specific Benefits***: Whenever costs associated with specific benefits are clearly and easily measurable, those costs shall be charged to the beneficiaries, in accordance with their specific zones of benefit. Where there is a question as to the identity of the beneficiary or the method of measuring the benefit, the allocation of costs should remain flexible and be determined in accordance with accepted practices and sound judgements based on the four water pricing concepts. The District recognizes and supports the State Legislature's limitation imposed on the District that rates for agricultural water shall not exceed one-fourth of the rate for all water other than agricultural water. In order to encourage the continuance of agricultural use of land in the County, to encourage the preservation of open space, to defer intensification of users and to further support the limitation imposed by the State Legislature, it is the District's policy that rates for agricultural water shall not exceed one-tenth the rate for all water other than agricultural water.

  Both water charges and property taxes are used to recover costs incurred for the benefit of current water users. The costs for future supply sources can be recovered using current revenues or through project specific long-term financing.

- ***Balancing Costs***: The District recognizes that there may be imbalances between revenues and costs within a zone of benefit from year to year. The District will strive to achieve balance over the long-term in accordance with the District Act and to properly charge recipients for the benefits received.

- ***Incentives***: Incentives in the form of subsidies may be provided in order to reduce the price of specific sources of water in order to optimize use of available or future water resources.

- ***Recycled Water***: From time to time, the District may enter into agreements to provide wholesale delivery or other services related to recycled water. The District will strive to recover the costs of these facilities consistent with the pooling concepts outlined above, while adhering to the specifics of any agreement.

Appendix C

Resolution Adopting "Water Utility Taxing and Pricing Policy" and Rescinding Resolution No. 96-82

3. Executive and Staff Limitations

District staff are authorized to develop a water rate structure which meets the objectives set forth herein, in accordance with the District Act, and using the concepts set forth above. The District's rate structure is implemented only by resolutions approved by the Board of Directors.

Staff is authorized to recommend water charges for consideration by the Board in accordance with the District Act. Water charges, if any, shall be recommended by staff each year be at fixed and uniform rates for agricultural water and for all water other than agricultural water, respectively, except that each such rate for agricultural water shall be one-tenth of the rate for all water other than agricultural water. The Board has determined that agricultural use of lands is of value to the County and the state, and that agricultural lands provide an open space benefit. The Board's limiting staff to a recommendation of agricultural water rates below the maximum allowed by the District Act will benefit water users Countywide, and is necessary to carry out the policies of the State Legislature and the District Board of Directors.

Staff is authorized to prepare, for the Board's consideration, resolutions for the collection of property taxes as needed and authorized under applicable laws.

4. Previous Policy Rescinded

The "Water Taxing and Pricing Policy," adopted by Resolution No. 96-82, is hereby rescinded.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District on March 16, 1999 by the following vote:

AYES: Directors Gross, Zlotnick, Judge, Kamei, Sanchez, Estremera, Wilson

NOES: Directors None

ABSENT: Directors None

SANTA CLARA VALLEY WATER DISTRICT

By: _____
Chair/Board of Directors

ATTEST: LAUREN L. KELLER

_____
Clerk/Board of Directors

RL10455

B-9

Appendix C

EXHIBIT "A"

SANTA CLARA VALLEY WATER DISTRICT
BOARD RESOLUTIONS USED AS A BASIS FOR
WATER TAXING AND PRICING POLICY

Resolution 68-4 to govern the management of its water supply and water facilities so as to equalize the availability of water throughout the District by every means available to it to the fullest extent consistent with equity and sound conservation principles; and

Resolution 71-19 adopting "Water Taxing and Pricing Policy;" and

Resolution 74-28 adopting rules and regulations for the service of surface water and establishing a fee and charge structure; and

Resolution 79-87 providing for water importation tax credits and repealing prior resolution which was adopted November 23, 1964.

Resolution 81-44 declaring policy regarding payment of in-county credit for ensuing fiscal years and that no unit rate is provided for the in-county credit and no payments made from and after fiscal year 1983-1984.

Resolution 90-73 adopting and authorizing the filing and implementation of the Santa Clara Valley Water District Urban Water Management Plan which provides for water conservation efforts which are funded by the District.

Appendix D

Santa Clara Valley Water District Policies and Procedures Financial Services Fund Balance Reserves

District Reserves

Overview

Introduction

The following Fund Reserves Policy is established in accordance with the Board's Executive Limitation, EL-5 and 5.3, "With respect to the actual, ongoing financial condition and activities, the GM shall not cause or allow the development of fiscal jeopardy or a material deviation of actual expenditures from Board priorities established in Ends policies." "Further, without limiting the scope of the foregoing by this enumeration, he or she shall not use any unappropriated long-term reserves or undesignated fund balance."

Based on the GM's interpretation of the above policy, District Fund Balance Reserve policies and procedures have been developed and outlined herein.

The objective of this policy is to ensure the provision of adequate reserves and to provide guidance for the appropriate accumulation and use of District Reserve Funds. In addition to this policy, both long-term goals and short-term objectives will influence and direct the allocation of annual operating funds for the various reserves. The District classifies reserves as either Operating, Capital, Debt Service, or Funded and Contingent Liabilities.

Purpose

Fund Reserves represent a portion of fund balance that is segregated for a specific future use, or is not available for appropriation or expenditure. Adequate reserve levels are a necessary component of the District's overall financial management strategy and a key factor in external agencies' measurement of the District's financial strength.

General Policies

This policy establishes the purpose and use of such reserve funds, as well as the procedures for funding and maintaining reserves.

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- Each fiscal year, the District establishes reserve appropriations necessary to meet its legal covenants, set aside cash to pay expenses prior to the receipt of tax revenues, provide for prudent funding of operating contingencies and contingent liabilities, and sustain its capital improvement program.
- There are four categories of reserves: Operating, Capital, Funded and Contingent Liabilities, and Debt Service
- Reserves are to be fully funded each budget year, or staff will establish an intermediate- and long-term funding plan for the reserve as part of the budget process.
- Budgeted reserves may vary from those of the Comprehensive Annual Financial Report (CAFR) where it is appropriate to recognize actual cash transactions that are recorded in the CAFR as liabilities. Such adjustments include recognizing inter-fund loans, commercial paper financing, and certain accruals as funding sources available for appropriation or as funding uses that reduce funds available for other purposes. These adjustments must be annually reconciled to the audited CAFR.
- Reserve funds will not be spent for any function other than the specific purpose of the reserve from which they are drawn, without explicit Board approval for the exception. All appropriations from reserve accounts require Board approval.
- Debt Service Reserves are administered by debt trustees and set at levels established by loan covenants.
- All remaining reserves shall be reviewed each year by staff to determine reserve level requirement recommendations within guidelines established by this interpretation of Board policy.

Operating Reserves

Contingency Reserves

The appropriations for contingencies are set at a fixed amount at the

Appendix D

beginning of the fiscal year to provide for unforeseen needs and emergency appropriations during the year. The appropriated amounts are established as follows:

Water Enterprise Fund: Up to 1% of Budgeted Operating Outlays
District General Fund: Up to 0.5% of Budgeted Operating Outlays
All Other Funds: Up to 1.3% of Budgeted Operating Outlays per each Fund

Working Capital Reserves

This reserve establishes available cash assets from which operating and capital expenditures are made prior to the receipt of revenues for the fiscal year. The budget provides for the following levels of reserve:

Water Enterprise Fund: One month (1/12) of budgeted operating outlays (Required under Water Revenue Bond Resolution 94-58 and the Second Supplemental Resolution No 2000-64)

District General Fund: Up to half (1/2) of estimated property tax revenues
Watershed Funds: Up to half (1/2) of budgeted operating outlays

Other Operating Reserves

The following reserves have been established at contractual or recommended levels appropriate to the specific purpose of each reserve:

Supplemental Water Supply Reserve: This reserve is to provide funding for supplemental water purchases, participation in water banking or conservation opportunities, and other water supply needs. The reserve level should not exceed $11 million, which represents the highest annual amount expended for supplemental water supply needs.

Rate Stabilization Reserve: Reserve established to both 1) mitigate fluctuations in water charges by providing funding during periods of extraordinary operating expense or water revenue shortfalls, and 2) to supplement District revenues to meet debt service coverage requirements.

Appendix D

The budgeted reserve levels should not be less than 10% of annual debt service due on all Parity Obligation.

San Felipe Reserve: This is the sum of three reserves established pursuant to the District contracts with the U.S. Bureau of Reclamation for operation and maintenance of the San Felipe Division of the Central

Valley Project: If used, the reserve level must be restored to a minimum of $1.75 million plus accrued interest, and not to exceed $10 million.

Environmental Water Banking Reserve: This reserve provides a mechanism to ensure funds are available to meet financial obligations generated by the agreement between the Department of Water Resources of State of California (DWR), the District, and Kern County Water Agency of 2001 Water Resources for Support of the Environmental Water Account under the CALFED Program. The reserve level should not exceed $15 million, and it is based on revenues or other funding sources received in excess of cost.

Maintenance of Newly Improved Creeks: Clean Safe Creeks and Natural Flood Protection Reserve: This reserve is established to appropriate special tax revenues for future maintenance of the nine flood protection projects approved by the voters. Funds remaining in this reserve at the end of the 15-Year Clean Safe Creeks and Natural Flood Protection Program will be available for maintenance of the creek facilities in subsequent years.

Other Clean Safe Creeks Activities Reserves: This Clean Safe Creeks and Natural Flood Protection Fund reserve is established to appropriate special tax revenues for operating expenditures in future years necessary to accomplish the programs and projects approved by the voters. Funds remaining in this reserve at the end of the 15-Year Clean Safe Creeks and Natural Flood Protection Program will be available for these purposes in subsequent years.

Reserved for Encumbrances: Outstanding encumbered purchases, contracts, and other commitments for which the District bears an obligation are recorded as liabilities. These reservation of Fund Balance and Fund Equity represent funds set aside to ensure payment of the District's liabilities. The reserve's balances are adjusted annually to reflect total obligations at year-end, as per Generally Accepted Accounting Principles reporting requirements.

Appendix D

Capital Reserves

The District currently budgets three types of Capital Reserves.

Capital Replacement Reserves: The purpose of this reserve is to accrue funding for asset purchases and replacement in the period of use. Through this funding reservation, monies are set aside for planned future asset expenditures within specified categories. In addition, this reserve provides a funding source for unplanned asset purchases, and assists with asset management and long-range planning. The reserve level is equal to annual depreciation in each fund.

Future Years' Capital Reserves: This reserve is provided within each Fund in support of future capital needs, as projected in the District's 15-year Capital Improvement Plan. For the Clean, Safe Creeks Program Fund, the remainder of both operating and capital revenues not otherwise re-appropriated to restore the fund's operating reserves to their authorized amounts, are appropriated to this reserve for use in financing projects on a pay-as-you-go basis. For all other funds, Future Years Capital Reserve is funded with the remainder of revenues not otherwise needed to restore all other capital reserves and contingencies to their authorized amounts.

Designated for Current Authorized Projects: This reserve provides for the funding of remaining authorized capital appropriations as of the close of the fiscal year. Capital Projects operate on a multi-year basis; hence all amounts approved but unspent on currently active Capital Projects may carry forward (with the exclusion of unspent labor and benefits) in this reserve until the projects are complete. This is in accordance with the Budget resolution, which provides for reappropriation of prior year, unspent capital budget.

Appendix D

Reserves For Funded and Contingent Liabilities:

These reserve funds are established at recommended levels appropriate to the specific purpose of each reserve, for the purpose of discharging a future contingent liability.

Water Enterprise - Bureau Repayment Reserve: Established by Board policy to provide funding for the District's future contractual liability to the U.S. Bureau of Reclamation, Central Valley Project.

Risk Insurance Reserves: Established by Board policy to fund the District's contingent liabilities for general liability, property damage, and worker's compensation under the District's self insurance program. The amount of this reserve is reviewed bi-annually under an independent actuarial evaluation.

PERS Stabilization Reserve: This reserve is established to mitigate the escalating costs of employer contributions to the California Public Employees Retirement System (PERS). This reserve is established for FY 2003-04 and FY 2004-05 to appropriate prior year-end salary and other expenditure savings as practicable to be available for use beginning in FY 2005-06 to mitigate substantial PERS employer contribution expenses. In FY 2005-06, this Reserve will be re-evaluated and recommendations will be brought to the Board regarding its future use.

State Budget Impact Reserve: Established in anticipation of a one-time 1% Ad Valorem property tax shift for FY 2004-05 and FY 2005-06 from the District to the Education Revenue Augmentation Fund (ERAF).

Debt Service Reserves:

Debt Service Reserves

Debt Service Reserves are to provide a reservation of funds for current debt service payment on outstanding debt.

Reserves are established in accordance with Bond or Certificate of Participation (COP) resolutions and initially funded from proceeds of the issuance. Each Debt Service Reserve Fund is required to be maintained in accordance with resolution mandates.

Debt Service Reserves are held and administered by the issuance trustee, to be used for payment of the principal and interest in the event that on any payment date the fiscal agent does not receive sufficient installment payments for the District for such purpose.

Appendix E

Acronyms

ABAG	Association of Bay Area Governments
AF	Acre Feet
AG	Agricultural
AGM	Assistant General Manager
BAWAC	Bay Area Water Agencies Coalition
BAWSCA	Bay Area Water Supply and Conservation Agency
BDCP	Bay Delta Conservation Plan
BMP	Best Management Practices
CAPE	California Awards for Performance Excellence
CIP	Capital Improvement Plan
COP	Certificate of Participation
CPS	Capital Programs Services
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
DSOD	Division of Safety of Dams (California)
DWR	Department of Water Resources
EBMUD	East Bay Municipal Utility District
ET	Evapotranspiration
EWA	Environmental Water Account
FAHCE	Fisheries and Aquatic Habitat Collaborative Effort
FY	Fiscal Year
GM	General Manager
HAZMAT	Hazardous Materials
HCP/NCCP	Habitat Conservation Plan/National Communities Conservation Plan
HET	High Efficiency Toilet
INAAP	In-field Nutrient Assessment Assistance Program
IRWMP	Integrated Regional Water Management Plan
IWRP	Integrated Water Resources Planning. Also refers to the 1997 IWRP

Appendix E

Acronyms

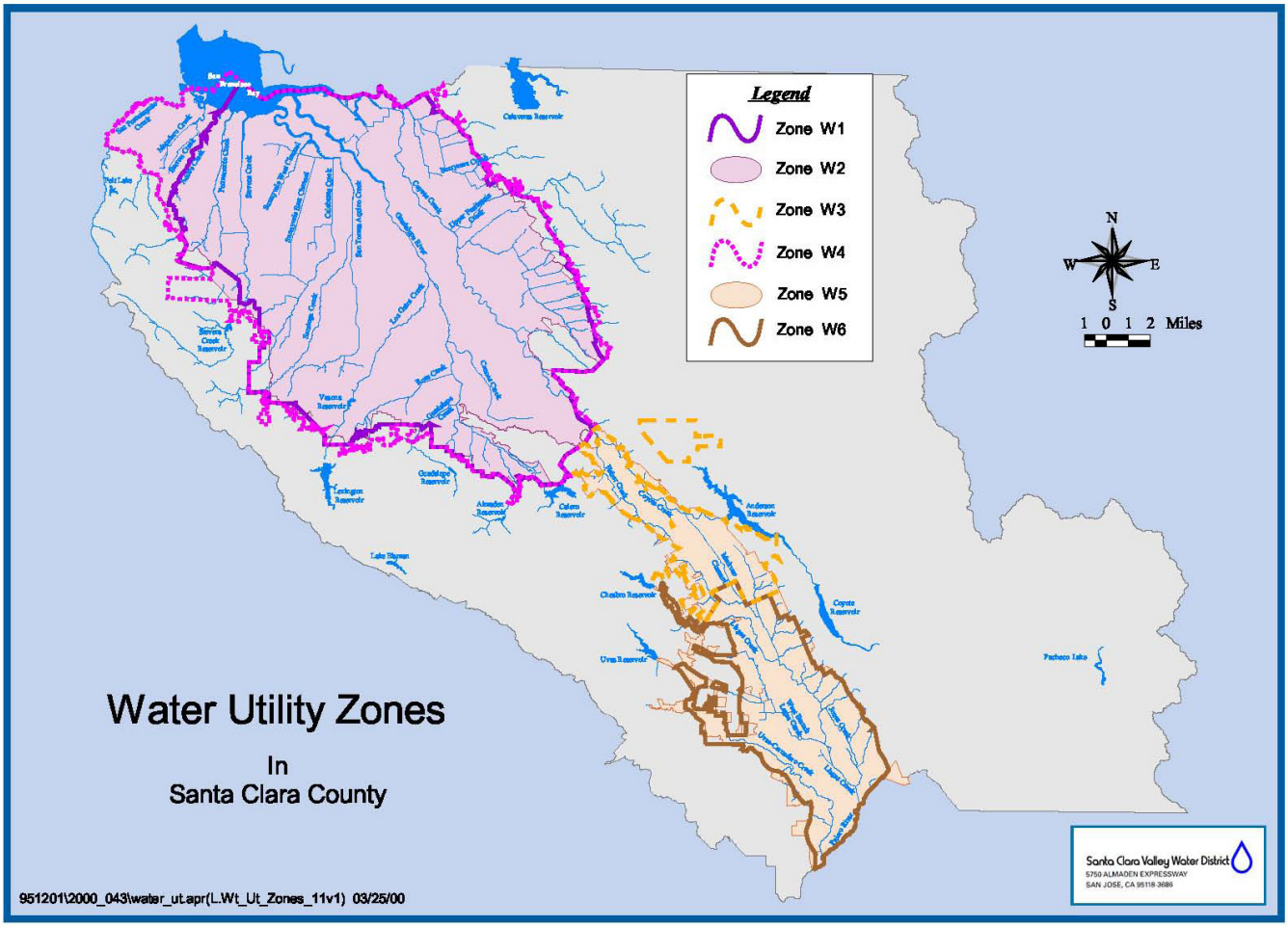
IWRP 2003	District's 2003 IWRP Study
LFRO	Low-fouling Reverse Osmosis
MF	Microfiltration
M&I	Municipal and Industrial
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
PCE	Perchloroethylene
PVWMA	Pajaro Valley Water Management Agency
PWTP	Penitencia Water Treatment Plant
RWQCB	Regional Water Quality Control Board
RWTP	Rinconada Water Treatment Plant
SBCWD	San Benito County Water District
SCRWA	South County Regional Wastewater Authority
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SCVWD	Santa Clara Valley Water District
SFPUC	San Francisco Public Utility Commission
STWTP	Santa Teresa Water Treatment Plant
SWP	State Water Project
T&D	Transmission and Distribution
ULFT	Ultra-low-flush Toilets
USBR	U.S. Bureau of Reclamation
UWMP	Urban Water Management Plan
WET	Water Efficient Technologies
WRDA	Water Resources Development Act
WTP	Water Treatment Plant
WUE	Water Utility Enterprise

Appendix F

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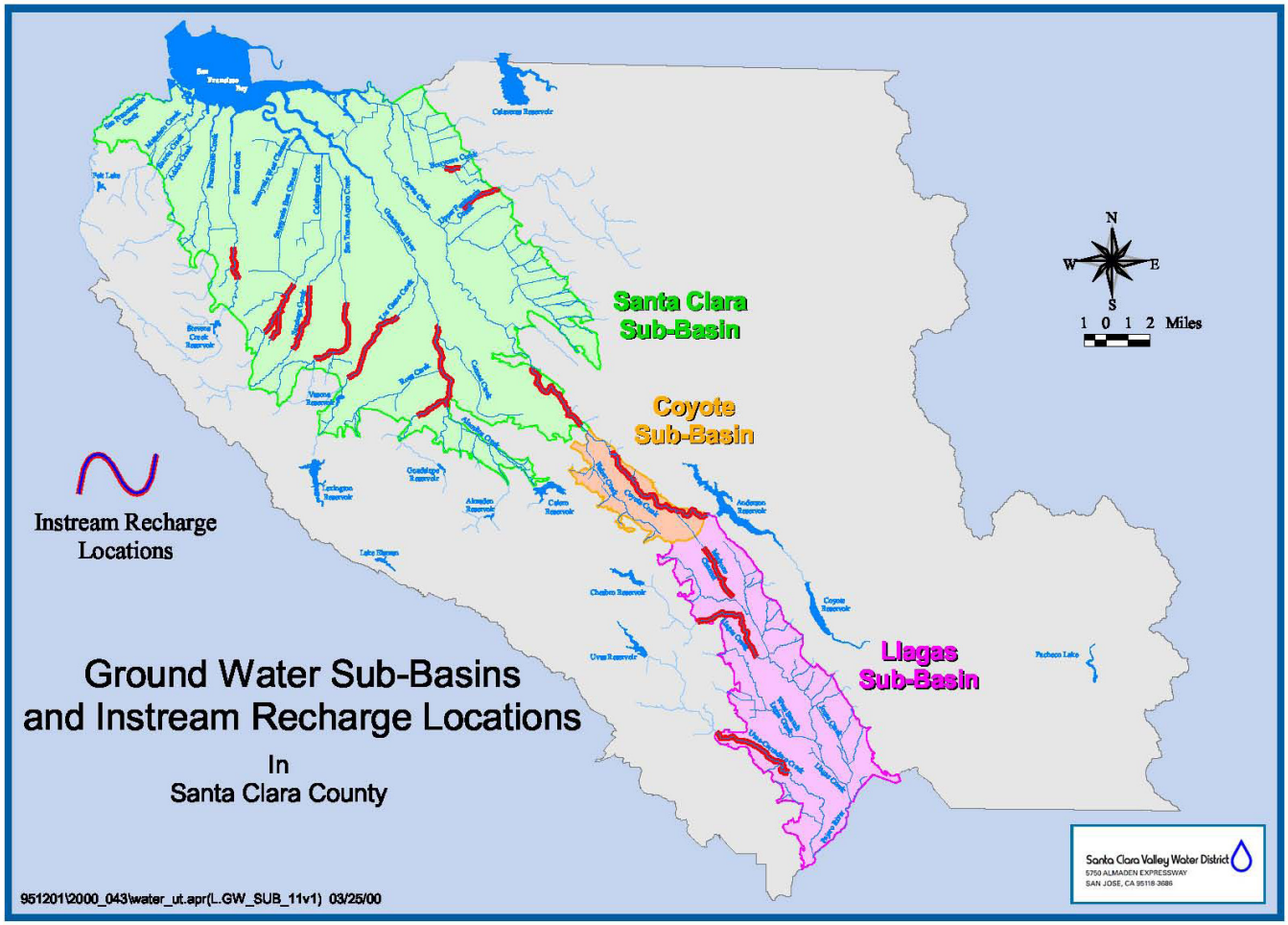
Appendix F

MAPS



Appendix F

MAPS



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